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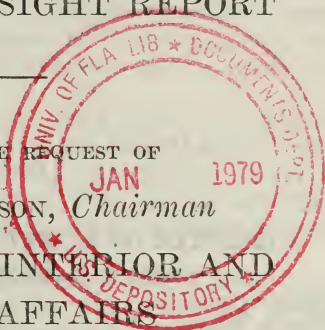
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THE COUNCIL ON ENVIRONMENTAL
QUALITY—OVERSIGHT REPORT

PRINTED AT THE REQUEST OF

HENRY M. JACKSON, *Chairman*

COMMITTEE ON INTERIOR AND
INSULAR AFFAIRS

UNITED STATES SENATE



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MEMORANDUM OF THE CHAIRMAN

To Members of the Senate Committee on Interior and Insular Affairs:

It has now been made than 6 years since the enactment of the National Environmental Policy Act and the creation of the Council on Environmental Quality. During these years much attention has been focused on the environmental impact statement requirement of NEPA's section 102(2)(C). Because of this emphasis it is possible that other equally important environmental policy goals of NEPA may have been ignored.

For example, the responsibilities of the Council on Environmental Quality are not limited to oversight of the federal agency compliance with the 102(2)(C) process. The CEQ was given a variety of roles to fulfill under NEPA. These range from acting as Presidential adviser, to educating the public on environmental issues, to researching technical areas of environmental science.

As we enter into a new Administration and a new Congress, I believe that it would be appropriate for the Committee to review the performance of the Council on Environmental Quality in light of the experience which the Committee has gained under NEPA.

As background for oversight hearings early this year, I have requested the Committee staff to prepare a study on the Council which suggests areas of future inquiry for the Committee. Ms. Deborah Merrick has conducted a series of interviews with the Council and several staff members and has researched the available background material and commentary on the CEQ.

This paper reviews the activities of the Council, compares them with its statutory mandate and identifies several issues which might be further explored in oversight hearings. To make this information readily available to the Committee members and staff, other members of the Congress and others with an interest in the development of environmental policy, I have ordered it to be printed as a Committee print.

HENRY M. JACKSON, *Chairman.*

METHODOLOGY

This report on the Council on Environmental Quality is the result of a study conducted from February through May 1976 by a staff member of the Committee on Interior and Insular Affairs working in consultation with the Environmental Policy Division of the Congressional Research Service of the Library of Congress (CRS).

During this four-month period, fourteen Congressional documents, seven CEQ publications, three books and thirteen articles or papers, were read for information and opinions on the Council. A bibliography of materials on the National Environmental Policy Act, compiled by CRS, provided a starting point for independent research by Interior Committee staff.

On March 10, 1976, responding to a February 11th request of Senator Jackson, the Council's Staff Director sent an organizational chart and list of professional staff members, including their backgrounds, responsibilities and terms of service, to the Committee.

On March 16, 1976, Senators Jackson and Fannin wrote to Chairman Russell Peterson requesting his cooperation with the Committee's legislative oversight effort and arranging for Miss Deborah Merrick to conduct interviews with the staff and members of the Council. A copy of that letter is included at the conclusion of this prologue.

A list of interview questions was developed with the assistance of Wallace D. Bowman and H. Steven Hughes of the CRS and the first interview was held with the Staff Director of the Council. He then scheduled meetings for Miss Merrick with eight other staff members and the three Council members. The dates of the interviews and names of the interviewees are listed below :

April 5, 1976: Steven D. Jellinek, Staff Director

April 6, 1976: Edwin H. Clark, III, Senior Economist;
James J. Reisa, Jr., Staff Member

April 12, 1976: Gary L. Widman, General Counsel (recently resigned)

April 16, 1976: William Matuszeski, Assistant Staff Director

May 17, 1976: Charles P. Eddy, Senior Staff Member

May 20, 1976: Russell Peterson, Chairman (recently resigned) ;
Beatrice E. Willard, Council Member; Malcolm Baldwin, Senior Staff Member

May 24, 1976: Lee M. Talbot, Assistant to the Chairman for International and Scientific Affairs; John A. Busterud, Council Member

Many of the persons interviewed provided supplementary written information which was also studied. Some of this information is included in the Appendices of the report.

After completing the series of interviews and her study of the written materials listed in the report's bibliography, Miss Merrick organized the information she had compiled into a format intended to be useful for Committee oversight hearings.

This report is intended to identify areas of the Council's experience and performance which might warrant further investigation and discussion in Committee hearings. It is, therefore, intended to serve the needs of the Committee members and staff in preparing for oversight hearings.

While an effort has been made to place the questions raised by the report into context, the report is not, and was not intended to be, a comprehensive statement of the activities and accomplishments of the Council on Environmental Quality. The seven annual reports of the Council should be consulted for further discussion of environmental issues and the Council's views.

This report was informally reviewed in draft by appropriate staff members of the Environmental Policy Division of the CRS and by the General Council and Staff Director of CEQ. An effort has been made to accommodate the comments received particularly those which were corrections to the text. The staff of CEQ, however, was in general disagreement with both the findings and presentation of the report.

Inasmuch as the intention of the report is to identify areas of inquiry for oversight hearings, the staff of CEQ and others who may disagree in whole or in part with the report may appropriately respond in the hearings. The Committee also invites any written communications commenting on the report.

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C., March 15, 1976.

Hon. RUSSELL W. PETERSON,
Chairman, Council on Environmental Quality
Washington, D.C.

DEAR CHAIRMAN PETERSON: It has now been more than six years since the enactment of the National Environmental Policy Act. The Senate Committee on Interior and Insular Affairs believes that it would be appropriate to review the performance of the Council on Environmental Quality in light of the experience which has now been gained under the Act.

As background for possible committee oversight hearings later this year, we have requested the committee staff to prepare a study on the *Council's execution of its responsibilities under the NEPA*. We have asked Ms. Deborah Merrick of the committee staff to conduct a series of interviews with appropriate members of your staff and members of the Council concerning the Council's activities. She will be assisted by the Environmental Policy Division of the Congressional Research Service and such other members of the committee staff as may appear useful concerning specific issues.

Dr. Daniel Dreyfus, Deputy Staff Director of the Committee will be contacting you about the interviews. We are requesting your assistance and cooperation with this study. We believe that a legislative oversight review can be of great assistance to both the Council and the Committee.

Sincerely,

HENRY M. JACKSON,
Chairman.

PAUL J. FANNIN,
Ranking Minority Member.

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THE COUNCIL ON ENVIRONMENTAL QUALITY—OVERSIGHT REPORT

I. SUMMARY

INTRODUCTION

The Council on Environmental Quality was created by the National Environmental Policy Act of 1969. It was given a wide range of responsibilities by NEPA, the Environmental Quality Improvement Act of 1970 and Executive Order 11514 of 1970. The Council's current performance of these responsibilities is the central topic of this report.

The CEQ is a branch of the Executive Office of the President. The internal organization is headed by the three Council members and their Executive Office and consists of the office of the Staff Director, the Office of the General Counsel, the Office of the Assistant to the Chairman for International Affairs, and the Administrative Office.

The Chairman of CEQ, Russell W. Peterson, was appointed by the President in 1973. Council members Dr. Beatrice E. Willard and John A. Busterud have been with the Council since 1972. Mr. Peterson resigned in September 1976 and was replaced by Mr. Busterud.

The Environmental Quality Improvement Act makes it clear that the Chairman has primary responsibility for the work of the Council but the statutes leave the duties of the other two members undefined.

The Council has been allocated 40 permanent staff positions for the current fiscal year, a reduction of 25 positions from its greatest size in 1972.

Most of the staff members work in the Office of the Staff Director where they are assigned responsibility for policy analysis and other NEPA duties in a "functional area"—land-use, air pollution, etc.—within the realm of environmental policy.

The General Counsel's Office is responsible for the review of legislative and regulatory matters regarding the implementation and interpretation of NEPA. The Office of Assistant to the Chairman for International and Scientific Affairs, includes a scientist staff member and two international officers.

In addition, the Council is directed by statute to consult with the Citizen's Advisory Committee on Environmental Quality which was established by Executive Order 11472 in 1969.

The Council is funded under two statutes; NEPA contains a continuing authorization of \$1 million, and EQIA provides a 2-year authorization at a level of a \$3 million authorization through fiscal year 1978.

MAJOR ACTIVITIES

The responsibilities of the Council on Environmental Quality, as derived from NEPA, EQIA and Executive Order 11514, can be organized into three categories of "major activities." These are: over-

sight of the environmental impact statement process, environmental education, research and monitoring; and environmental policy advisor to the President.

The Council's most publicized responsibility is its oversight of the environmental impact statement process required of all agencies by Section 102(2)(C) of NEPA.

CEQ exercises its oversight authority through general guidelines, and memoranda, and review and comments on specific impact statements.

The guidelines have been revised three times during the Council's existence. The General Counsel's Office is considering drafting new guidelines for several issues which have emerged from NEPA litigation and from suggestions of various groups and individuals.

Impact statement review provides the Council with most of its day to day contact with the Federal agencies. Agency recognition of the Council's expertise in this area may also allow CEQ to participate in environmental policy making.

The Council has no legal authority to enforce its guidelines against recalcitrant agencies however. It has therefore taken a secondary role to the Federal courts in this area and has tailored its guidelines to the leading court decisions on NEPA.

In addition, because of the revolutionary nature of the EIS requirement, the Council must expend efforts defending NEPA and assuring the public and the rest of government that the EIS process works.

The Council's second major duty under NEPA is to provide the public, including Congress, with information about the environment. This includes preparing the Environmental Quality Report, conducting research relating to environmental quality and developing environmental indices and monitoring systems. The authority to hold public hearings and to coordinate federal environmental research and the responsibility of informing Congress about the environmental issues relating to the Federal nonnuclear energy research and development program are also encompassed in the Council's educational function.

CEQ's general research is not performed completely "in-house" but is shared with other agencies or contracted out. The Council approves the topics and staff monitor the projects.

Subjects for research are determined by the requests of the President and Congress and the interests of staff. The Council has been especially interested in issues which overlap or fall between agency jurisdictions. Topics have included the environmental effects of energy, land use issues and the economic impacts of Federal environmental policy.

Little research has been done, however, on improving the content of environmental impact statements. The Council has begun to address this area more fully in recent months.

The Council publishes an Annual Environmental Quality Report which is its most widely disseminated contribution to public environmental education. It also produces special "public education" reports through some of its contract studies and holds public hearings and conferences on environmental issues.

The Council gained a new responsibility for public education under the Federal Non-nuclear Energy Research and Development Act of

1974. It must hold public hearings, do a study, and report to Congress on the environmental and conservation aspects of Federal energy R. & D. programs.

One of the Council's primary roles as envisioned by the Congress and set forth in NEPA, is environmental policy advisor to the President. However, in contrast to the Council's responsibility for oversight of the EIS process, which has become more important than Congress expected it to, CEQ's advisory role has become less predominant during the past four or five years.

By law and Executive Order, the Council was given powers to guide the policies and actions of other Federal agencies. These powers are limited however, by CEQ's ability to persuade the President to take action. The Council is only one of many advisors who must compete for the President's attention and its success has varied with the political climate for environmental goals. Some tangible evidence of the degree of success or failure CEQ has had in its advisory role may be found in the record of environmental legislation proposed by the Administration and of consultations between the Council and the President.

In 1971, 1972, and 1973, the Administration produced "The President's Environmental Programs" which were largely CEQ's work. Now, the Council no longer aggressively initiates legislation but has shifted its emphasis to working backstage with agency decision makers. There is a consensus among Council and staff that most of the major environmental legislation has been passed or is pending in Congress. Other external political factors have placed the Council in a more defensive position now than in earlier years.

CEQ is still attempting to perform an advisory function within the executive branch by rationalizing existing Federal policies. Examples of its current activities include meetings with agency heads on environmental impact statement issues, participation in OMB's "Director's Reviews" of agency budgets, and the use of CEQ studies to influence policy. The Council has also encouraged agencies to coordinate their land use planning assistance programs by acting as an intermediary and neutral advisor. Finally, the Council's advisory duties include advising the President on international environmental cooperation.

II. FINDINGS AND CONCLUSIONS

This report attempts to outline issues for further study relating to the Council on Environmental Quality as an institution. The activities of the CEQ are compared with the legislative history and language of the Council's authorizing legislation, and CEQ's size and structure are analyzed in relation to its statutory responsibilities.

During the Committee's study of the Council, several issues and problem areas emerged. These will be briefly discussed in this section, and more fully analyzed in the body of the report. No attempt has been made to assign an order of importance to the listed "problems."

As it operates at present, the Council has both weaknesses and strengths. And it is apparent that many of the conditions the Council works under are two-sided coins—both advantageous and disadvantageous.

One example is the placement of CEQ within the Office of the President. This provides the Council with the opportunity to influence high-level federal policy from the inside. However, it also places some restraints on the Council's independence and its ability to publicly criticize administration policy. In its early years CEQ refused to criticize agency compliance with NEPA, choosing instead to work quietly within the executive branch. The contrast between the Council's quiet role and the public activism of EPA and the federal courts had an adverse effect on the Council's relationship with its environmental group constituency. Lately however, CEQ has been less hesitant to make critical public statements as it has realized that its effectiveness as a White House advisor will not be impaired.¹

The Chairman of the Council has indicated that he feels free to criticize administration policy when necessary. After giving his formal testimony for the Administration on the Hill for example, Chairman Peterson makes it clear that his answers to subsequent questions reflect his own views.²

The creation of CEQ as a policy making advisory body rather than a line administrative agency has also proven significant. On the one hand the public and other agencies view CEQ as concerned about the whole environmental policy system and therefore more objective than a mission agency. Thus CEQ is the natural leader for coordinating inter-agency policy, as in the land use area, or for organizing task forces. On the other hand, CEQ lacks the bureaucratic muscle built up by line agencies with specific programs to carry out.

CEQ must promote a relatively new set of values without the influence or authority of a line or mission agency as it competes for Presidential acceptance of its proposals and as an advisory body,

¹ Richard Liroff, "NEPA and its Aftermath: the Formation of a National Policy for the Environment" (draft for publication by Indiana University Press) July 1975, p. 103. CEQ's review comments have played an important role in two court cases, the Warm Springs Dam case, *Warm Springs Dam Task Force v. Gribble*, 4 ELR 20667 (Douglas, Circuit Justice, June 17, 1974) and the plutonium recycling decision, *NRDC v. NRC* Nos. 963, 1051 (2nd Circuit, May 26, 1976).

² Interview. Chairman Peterson has resigned since this interview was held.

its ability to effect policy change depends upon the commitment of the President to environmental quality goals. As we will see, there was only a brief period in CEQ's history when the President placed a high priority on environmental issues.

As a result of these political factors no comprehensive environmental legislative programs have been produced by the Administration in the past three years. In addition, although CEQ originally coordinated all of the executive branch environmental legislation, the Office of Management and Budget now has control of this legislative duty.

The Council's responsibility to review and evaluate Federal programs in light of the policy set forth in Title I of NEPA should also be mentioned in the context of its advisory role. Properly fulfilled, this review responsibility could provide a significant back-up to the Council's advisory duties; yet this section of NEPA has been neglected by the CEQ, largely because of staffing constraints.

The practical problem of inadequate staffing has adversely affected the Council's performance of the advisory role assigned it by NEPA. It hampers the Council's ability to effect policy changes by limiting the number of issues the Council can become involved in. The Council's size has been partially responsible for its concentration on current issues and its neglect of comprehensive, long range policy review.

Finally, due to its lack of statutory authority the Council is often frustrated by its purely advisory role and the need to compete for the President's attention. Certainly, the fate of CEQ is tied to the fate of environmental quality as a political goal and the Council cannot realize its potential under NEPA without Presidential support.

Briefly restated, these are the problems in the Council's environmental advisory role which this report introduces—

(1) There have been no environmental programs produced by the Executive office with the Council's assistance in the past three years.

(2) OMB rather than CEQ controls the coordination of all environmental legislation.

(3) CEQ's limited size has forced it to concentrate on front and center problems and to neglect comprehensive and long range policy review.

(4) CEQ must promote a relatively new set of values without the influence or authority of a line or mission agency as it competes for Presidential acceptance of its proposals.

In one area, the Council does have a role similar to that of a mission agency. That is the oversight and implementation of the 102(2) (C) impact statement requirement under NEPA. Yet here the Council also lacks statutory enforcement authority; it can only guide agencies toward compliance with NEPA procedures. However, the Council's lack of power to force agencies to adopt 102(2) (C) procedures is consistent with the action-forcing policy behind NEPA. Despite the early reluctance or recalcitrance of many agencies, the impact statement process has—with the help of the federal courts—become institutionalized in the federal bureaucracy, only 6 years after the passage of NEPA.

Of course, the impact statement process is not without its problems. For the purposes of this report we will focus on problems with the Council's role in the 102(2) (C) process.

The Council has the responsibility, under Executive Order No. 11514, to issue guidelines to all Federal agencies. However, court decisions have treated them inconsistently and only one circuit has given them legal effect. Federal agencies therefore, are uncertain as to how strictly they must adhere to the guidelines. This has led to uneven implementation of Section 102(2) (C).

An important part of the Council's oversight role is the review of the impact statements, which are received by CEQ at a rate of over one hundred a month. However if a comprehensive program of "quality control" is desirable, then the Council's system for a review is inadequate. Only a few are chosen for detailed review and those usually involve highly significant projects.

The Council's lack of statutory enforcement powers and the resultant active role of the federal courts has led to other implementation problems. Since adjudication is necessarily focused on individual situations and fact patterns, the court's interpretation of NEPA's responsibilities has not always been crystal clear to the agencies. Thus, overly long and diffuse impact statements may result from cautious agency lawyers' attempts to satisfy every element of various judicial opinions.

The usefulness of impact statements depends in part upon the quality of the scientific information they contain. The Council has not given high enough priority to its responsibility to develop the methods and procedures and scientific bases for environmental impact analyses required by Section 102(2) (B). Recently however, CEQ has begun to step up its efforts in this area.

A final issue is that the burden of its EIS responsibilities by the Council has caused the policy goals in Section 101 of NEPA to suffer. Although a procedural emphasis may have been necessary in order to effect a radical change in agency decision making methods, many feel that the Council should now emphasize the environmental policy values expressed in NEPA.

A brief restatement of the issues related to CEQ's role in the EIS process follows:

- (1) The Council's inability to enforce the EIS requirement has placed responsibility on the Federal courts and has led to implementation problems.

- (2) Inconsistent treatment of CEQ's guidelines by the courts has led to uneven implementation of Section 102(2) (C).

- (3) The Council's system for reviewing draft and final impact statements is inadequate.

- (4) The development of "methods and procedures" and scientific bases for environmental impact analysis have been given comparatively low priority by the Council and the contents of impact statements have suffered.

The third major function of the Council discussed in this report includes environmental education, research, and monitoring conditions and changes in the environment. The Council's implementation of its statutory responsibilities in these areas has been incomplete in several respects.

One difficulty the Council faced at the outset was the conflict between the role of environmental educator and source of public information and that of confidential Presidential advisor and policy maker. The Council chose to give priority to the latter role. While this choice may have been more beneficial to NEPA implementation at that time

it is apparent that in recent years such an emphasis has not been fruitful.

The Annual Report of the Council is its most widely known public education effort. Although CEQ's reports have been generally well-received the Reports' contents have not followed the requirement of NEPA. In particular the Reports have paid inadequate attention to natural resource availability, useful statistics on status and trends of the environment, and policy recommendations.

One research issue is the need for coordination of Federal research. The Council has the legal authority to be the coordinating institution but has not been inclined to take on such an overwhelming job.

Finally because CEQ monitors its contract studies very closely, the range of research topics is limited by the expertise available in the small professional staff and many areas which the Council would like to study have had to be neglected.

For example the development of environmental indices and monitoring techniques was a research topic given high priority by the drafters of NEPA. Yet CEQ's efforts in this area were muted until a scientist with the requisite interests and expertise joined the staff in 1974.

The following list summarizes the problems which exist in CEQ's environmental education, research, and monitoring programs:

- (1) Little research has been done aimed at improving the scientific content of environment impact statements.

- (2) The Council has incomplete information about environmental and ecological research being done in other parts of the Federal government.

- (3) Research topics have been limited by available staff expertise, as for example, the development of a monitoring program.

- (4) The Annual Report does not conform to NEPA's requirements.

Finally, three issues which are discussed in the "Organization and Funding" section of the report should be highlighted here. Of the three members of the Council, the Chairman is the only member with authority and a well-defined role. This may prevent the other members from actively contributing to the Council's work.

Second, the CEQ has two authorizing statutes (NEPA and EQIA). Although it is a minor issue, this double authorization is unnecessary and has created some confusion among Congressional committees.

The third and major problem area is the size of the Council's staff. The number of full time positions has been steadily decreasing since 1972. Budget increases have provided money for contract studies rather than for additional personnel. Although staff cutbacks may be explained as part of an overall attempt to reduce the size of the Executive Office, the reductions at CEQ have had an adverse impact on NEPA implementation and the development of environmental policies.

The size of the Council has advantages and disadvantages. Because of the small size there is an esprit de corps at CEQ not found in huge bureaucracies. Communication within the Council is good and staff members are able to see direct results of their activities. In general the staff is dedicated and bright—"here because they want to be."³

³ Interviews.

Yet all agree that the staff is overworked and has not been able to pay full attention to some aspects of NEPA.

An early commentator on CEQ noted that the agency had initially concentrated on short range problems rather than on the more comprehensive mandate of NEPA.⁴ Today it continues to be difficult for the Council to work from an overview or long range perspective; fire-fighting operations come up daily and priorities must constantly be reordered.⁵

Those areas of NEPA which have been neglected are noted throughout this report. They include CEQ's responsibility to evaluate federal activities and programs in light of the environmental policies set forth in Section 101 and to encourage research to improve the quality of scientific data on the environment and quantify environmental values. With its limited staff the Council has not been able to work well in these and other areas.

In some respects, however, implementation of NEPA and the Council's role therein has entered a secondary phase which warrants close examination. The development of environmental policy legislation by CEQ is receiving less emphasis than in the past, in part because the targets are no longer as obvious. The question now is whether CEQ is taking the right tack in its current policy activities.

The 102(2)(C) process may now be virtually institutionalized; the next challenge for CEQ is to help make the process meaningful. This means insuring that impact statements are useful to and used by decisionmaker and integrating NEPA's substantive policy goals into the 102(2)(C) process.

This latter task is related to an overall need for the Council and the Congress to take a second look at all of NEPA's goals and requirements. With new Congressional direction, the Council will be able to more fully discharge its responsibilities under the National Environmental Policy Act.

⁴ Richard N. L. Andrews, "The Council on Environmental Quality: An Evaluation," *Journal of Soil and Water Conservation*, Jan.-Feb. 1972.

⁵ Interview.

III. INTRODUCTION TO THE COUNCIL

The Council on Environmental Quality (CEQ) was created by the National Environmental Policy Act of 1969 [NEPA]¹ to be an environmental advisory body within the executive branch. The Council's statutory duties include advising the President, monitoring the status and trends of the environment, reviewing federal programs and policies, and providing information to the public on environmental matters. The Environmental Quality Improvement Act of 1970 [EQIA]² lists some related functions and establishes an Office of Environmental Quality to provide staff support for the Council. In addition, Executive Order 11514³ gives the Council specific responsibility to promulgate guidelines for agency compliance with NEPA's impact statement requirement.

Thus the Council on Environmental Quality was presented with a spectrum of responsibilities, ranging from high level policy negotiations to guidelines written on the procedural aspects of NEPA. Some of its roles conflict with each other and the Council has had to adjust its emphases accordingly. A few responsibilities have received little attention because of the small size of the Council's staff and others have been afforded low priority for political reasons.

This report will focus on the CEQ as an institution today—its current strengths and weaknesses in relation to its responsibilities. The past performance of the Council will be discussed where relevant for purposes of comparison or contrast.

The major sources for this report were written commentaries on NEPA and interviews with the Council members and staff. The current views of officials of other federal agencies, environmental and other client or interest groups and others who work with the Council on Environmental Quality were not solicited for this report. Such opinions would be useful in any future, more detailed, oversight report on the CEQ.

¹ Pub. L. 91-190, 42 U.S.C. 4321-4377, January 1, 1970, as amended by Pub. L. 94-83, August 9, 1975. [Appendix A]

² Pub. L. 91-224, 42 U.S.C. 4371-4374, April 3, 1970. [Appendix B]

³ "Protection and Enhancement of Environmental Quality," March 5, 1970. [Appendix C]

IV. ORGANIZATION AND FUNDING

The Council on Environmental Quality was created as part of the Executive Office of the President by Sec. 202 of NEPA. It is divided into five offices (see chart, Appendix D): The Executive Office; the Office of the Staff Director; the Office of General Council; Special staff and the Administrative Office.

THE COUNCIL

The Executive Office consists of the three Council members and support staff. The three members are appointed by the President subject to Senate confirmation. In the words of the statute, each member is to be "exceptionally well qualified to analyze and interpret environmental trends . . . ; to appraise programs and activities of the Federal Government . . . ; and to formulate and recommend national policies to promote the improvement of the quality of the environment."

The Chairman of the Council is Russell W. Peterson. (He resigned September 20, 1976.) Prior to his appointment to the CEQ, Chairman Peterson was the Governor of Delaware. While Governor from 1969 to 1973, he served as Chairman of the National Advisory Commission on Criminal Justice Standards and Goals, Chairman of the Committee on Crime Reduction and Public Safety of the National Governor's Conference, Chairman of the Education Commission of the States, and Chairman of the Delaware River Basin Commission. From 1942 to 1968, he was with the DuPont Company. In 1971 Chairman Peterson was named Conservationist of the Year by the National Wildlife Federation and was given the Gold Medal Award by the World Wildlife Fund.

Dr. Beatrice E. Willard and John A. Busterud (who is now Chairman) are the other members of the Council, both appointed in 1972. Dr. Willard, an ecologist, is former President of the Thorne Ecological Institute of Boulder, Colorado, an ecology center for industrial and government decisionmakers. She served as Chairman of the Denver Olympic Planning Board and as Secretary of the Colorado Air Pollution Control Commission. She has been a professor of biology at the University of Colorado and was a ranger naturalist in the National Parks. She is the author of books on alpine ecosystems.

Mr. Busterud was Deputy Assistant Secretary of Defense for Environmental Quality from 1971 to 1972. Prior to that, he practiced law with a San Francisco firm specializing in conservation and anti-trust law. He was a member of the Assembly in the California legislature. His activities have involved him in many conservation projects.¹

The Council does not operate as a troika. The Environmental Quality Improvement Act makes it clear that the Chairman is to direct the CEQ's operation and to have primary responsibility for the work

¹ Council on Environmental Quality, *The Fifth Annual Report* 1974, p. 495.

of the Council. The duties of the other two members are not well defined² and seem to depend on their interests and expertise.

Dr. Willard, for example, works with the scientific aspects of the impact statement process and in the area of ecological research. She speaks often to public groups on ecological principles and NEPA. She also chairs a federal committee which is working on basic concepts for Environmental Education and is designing a course on the EIS process for all levels of agency personnel.³

Mr. Busterud, a lawyer with an economics degree, actively participated in the Law of the Sea conferences as the United States' environmental negotiating delegate. He is also the chief environmental representative in the Law of the Sea interagency task force.

As a delegate to the Economic Council of Europe, Mr. Busterud has attempted to spread the idea of environmental assessments and impact statements to foreign countries. He works with the staff economists on reviewing the Council's studies on environmental economics and the economic sections of the Annual Reports. Mr. Busterud also chairs a legal committee created by the US/USSR Environmental Agreement.⁴

The Chairman divides his time among several activities. He participates in administration policy discussions and budget reviews and speaks for the Administration to Congress and the public on matters of environmental policy. Chairman Peterson meets with heads of individual agencies on EIS issues and on the environmental aspects of proposed legislation or regulations. International conferences and programs and meetings with various national interest groups⁵ demand a substantial amount of his time.

In addition, the Chairman attempts to further the goals of NEPA and the EIS process by educating the public and administration officials through speeches and Council studies.

Two of the substantive issues which Chairman Peterson has emphasized during his tenure are world population problems⁶ and environmental economics.⁷ Although the Chairman takes the lead in policy formulation, the three Council members consult with each other in forming policy positions and thus far have not disagreed on any major issues. If there is disagreement, the Chairman has the final decision. They, together with the senior staff members, set the annual goals for CE's activities.⁸

The council form of organization has not posed a significant problem for CEQ's operation, however, it does not seem to have added much either. CEQ's structure could be simplified into an office with one director and it would operate just as efficiently as it now does. Because they have no real responsibilities or power the two Council members

² Interview.

³ Interview.

⁴ Interview.

⁵ Sec. 205 of NEPA requires the Council to consult with the Citizen's Advisory Committee on Environmental Quality . . . and with such representatives of science, industry, agriculture, labor, conservation organizations, State and local governments and other groups, as it deems advisable.

⁶ CEQ has succeeded in placing an office for population problems in the State department and Peterson has discussed the issue with President Ford.

⁷ Essentially the thesis is that environmental values and economic development can co-exist. It is backed up by CEQ studies such as one which shows that the new environmental protection industries have created more jobs than were lost when plants closed down due to environmental regulation. See 102 Monitor, April 1976.

⁸ Interview.

have a difficult time finding substantive roles to play. It would probably be more efficient in terms of the Council's structure to replace them with staff.

THE COUNCIL'S STAFF

Under NEPA Sec. 203, the Council may employ such "officers and employees" and "experts and consultants" "as may be necessary to carry out its functions under this Act." In addition, the staff of the Office of Environmental Quality, is attached to the Council under the Environmental Quality Improvement Act. Sec. 203 of EQIA authorizes up to ten "specialists and other experts" as well as such "employees as may be necessary" to help the Council.

Under these authorizations the Council is authorized 40 permanent and 17 temporary positions by the Office of Management and Budget for the fiscal year ending September 30, 1977. As of December 1976 the Council had a total of 61 employees: 48 permanent, 8 temporary, and 5 on detail. Of these 40 are professionals. Since 1972 the authorized staff has been reduced. Since 1972 the staff has been reduced by OMB from 64 permanent employees to its current size.⁹

Most of the staff members work in the Office of the Staff Director. That office is responsible for "policy analysis and development, preparation of the CEQ Annual Report, conduct of special studies, oversight of agency implementation of NEPA and the duties assigned under Section 11 of the Non-Nuclear Energy Research and Development Act; it also assists the Council in the coordination of Federal Environmental Policy, and reviews and evaluates Federal activities which have a potential effect on the environment."¹⁰

The Staff Director has assigned one or two staff members to a "functional area" within the realm of environmental policy—i.e. land use, air pollution, etc. Each staff member is then responsible for performing the aforementioned duties of the staff director's office in his area of expertise. In practice however, the organization is less symmetrical; for instance, one staff member concentrates on the Non-Nuclear Energy Research and Development Act report and is exempted from other responsibilities. A few others concentrate solely on impact statement evaluation.¹¹

The General Counsel's Office is responsible for the review of legislative and regulatory matters regarding the implementation and interpretation of NEPA.¹² Its work includes the development of the CEQ Guidelines, coordination with the Justice Department on NEPA litigation, negotiations with OMB on administration environmental policy and work on international environmental law issues.¹³

The Office of the Assistant to the Chairman for International and Scientific Affairs includes a staff member and two international officers on detail from the Department of State and concentrates on international environmental issues and issues relating to living resources and wildlife. Finally, there is a small Administrative office.¹⁴

The staff of the Council has been described as skeletal and, as this report will demonstrate, CEQ's personnel limitations and budg-

⁹ See, Appendix E.

¹⁰ Letter from Staff Director, March 10, 1976.

¹¹ Interview.

¹² Letter from Staff Director, March 10, 1976.

¹³ Interview.

¹⁴ Letter from Staff Director, March 10, 1976.

etary constraints have hindered the full implementation of NEPA. The staff cutbacks made by OMB may be explained as part of an overall reduction in the size of the Executive Office of the President; however, they may also reflect implicit policy decisions by the Administration and by Congress.

The composition of the staff has been criticized as lacking in technical and scientific expertise,¹⁵ and may have contributed to a lopsided implementation of the Council's duties under Title II. However, given the fact that the Council and NEPA define "environment" rather broadly, i.e., the total human environment rather than simply pollution control, the number of social scientists and attorneys on the staff is supportable.¹⁶

ADVISORY COMMITTEE

The Council is directed by statute¹⁷ to consult with the Citizen's Advisory Committee on Environmental Quality in exercising its powers, functions, and duties under NEPA. The Advisory Committee was established in 1969 by Executive Order and receives funding from the CEQ. It meets approximately four times a year (see Appendix F). The Council addresses the Advisory Committee meetings and responds to their reports. The Committee has developed several Citizen's Handbooks on the Environment.¹⁸

FUNDING

The Council on Environmental Quality receives funding from two statutory sources. The National Environmental Policy Act of 1969 authorized \$300,000 for fiscal year 1970, \$700,000 for fiscal year 1971 and \$1,000,000 for each fiscal year thereafter.

The Environmental Quality Improvement Act of 1970 created an Office of Environmental Quality which became part of the CEQ. The Council utilizes the EQIA budget authorization for its own programs. That authorization was on a sliding scale through fiscal year 1973. It was then extended through fiscal year 1976 at a level of \$2,000,000. A bill providing a two year authorization through fiscal year 1978 at a level of \$3,000,000 was passed by Congress in May. The actual appropriations are modest considering CEQ's broad mandate under NEPA.¹⁹

CEQ's double authorization apparently has not created any operational difficulties. It has, however, resulted in some confusion in the referral of funding authorizations to Congressional committees. The Appropriation Committees (Subcommittees on H.U.D. and Independent

¹⁵ See, text at n. 86, *infra*.

¹⁶ For example, the 6th Annual Report states at p. 656 "Under NEPA the EIS process must focus on the "human environment," and some of our major concerns about energy development, transportation plans and other large capital projects involve social and economic effects on housing, public services, jobs, schools, etc. To address these effects adequately requires more and better application if the social sciences, as many federal agencies are recognizing."

¹⁷ NEPA Sec. 205.

¹⁸ Interview.

¹⁹ See Appendix G. "The appropriation request for fiscal year 1977 of \$2,915,000, includes \$50,000 for support of the Citizen's Advisory Committee on Environmental Quality. It is an increase of \$179,000 over that of fiscal year 1976. The major differences are:

An increase of \$75,000 in the amount available for contract studies.

An increase of \$25,000 in the reimbursement the Council is required to pay to the GSA . . .

An increase of \$76,000 in salaries and benefits, primarily due to the October 1, 1975, general pay increase." (From Statement of Russell W. Peterson before the Subcommittee on H.U.D. and Independent Agencies of the Senate Committee on Appropriations, March 16, 1976).

ent Agencies) handle both authorizations together. A tabulation of the Council's authorizations and appropriations by fiscal years is attached. (Appendix G)

PROBLEMS

The problems alluded to throughout this section can be summarized as follows:

- (1) The Chairman is the only member of the Council with a well defined role and authority. This may prevent the other members from actively contributing to the Council's work.

- (2) The Council is under-staffed.

- (3) Budget increases have provided money for contract studies rather than for additional personnel.

- (4) The staff composition may not adequately represent scientific and technical disciplines.

- (5) The Council's double authorization is unnecessary and awkward.

V. MAJOR ACTIVITIES

OVERSIGHT OF FEDERAL AGENCY COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

Background

The "action-forcing" provisions of the National Environmental Policy Act, in particular the impact statement requirement of Section 102(2)(C),¹ have been the subjects of most of the public discussion on NEPA and of the litigation to enforce it. As a result, oversight of the environmental impact statement process is the Council on Environmental Quality's preeminent responsibility in the eyes of the public.

The Council exercises its oversight authority by writing guidelines and memoranda on the implementation of NEPA, and making advisory comments concerning the need for, or adequacy of, specific environmental impact statements. CEQ's authority to take such actions derives from NEPA, the Environmental Quality Improvement Act of 1970 and Executive Order 11514.²

NEPA itself does not specifically delegate guideline responsibility to CEQ. In fact, the Act's legislative history implies that OMB was intended to supervise and coordinate NEPA's procedural requirements.³ There is, however, support for a strong CEQ oversight role in the general review activities assigned to it under Title II of NEPA.⁴

Executive Order No. 11514, issued March 5, 1970, clarified the Council's responsibilities under NEPA and gave it specific authority, *inter alia*, to:

(f) coordinate Federal programs related to environmental quality.

* * * * *

(h) issue guidelines to Federal agencies for the preparation of detailed statements on proposals for legislation and other Federal actions affecting the environment, as required by section 102(2)(c) of the Act. [NEPA]

¹ Frederick R. Anderson, *NEPA in the Courts* (1973), p. 3. The other action forcing provisions are: 102(2)(A) which calls upon the agencies to approach environmental problems through the integrated use of natural and social sciences and "environmental design arts"; 102(2)(B) asks that agencies develop methods for taking unquantified environmental values into account on a part with the usual technical and economic considerations. 102(2)(D) stresses the critical requirement of 102(2)(C)(iii) that less damaging alternatives to proposed action be sought out. 102(2)(E) calls upon the agencies to help improve man's global environment. In addition, Section 103 directs agencies to review their policies and practices and bring them into line with the Act.

² Council on Environmental Quality, "CEQ Authority Respecting Federal Agency Compliance with the National Environmental Policy Act," memorandum written at the request of the Committee on Merchant Marine and Fisheries, Subcommittee on the Environment, March 25, 1975. (Appendix H).

³ U.S. Congress, Senate, "National Environmental Policy," Hearings before the Senate Committee on Interior and Insular Affairs on S. 1075, S. 237 and S. 1752, 91st Cong., 1st sess., p. 112-128. Liroff, p. 59. Daniel A. Deyfus and Helen Ingram, "The National Environmental Policy Act: A view of Intent and Practice," draft prepared for publication in the "Natural Resources Journal," p. 26.

⁴ Section 204(3) defines CEQ's role with respect to the rest of the Executive Branch—"to review and appraise the various programs and activities of the Federal Government in light of the policy set forth in title I of this Act . . ." See also EQIA Section 203(d)(2)(5) and (6).

(i) issue such other instructions to agencies, and request such reports and other information from them, as may be required to carry out the Council's responsibilities under the Act. [NEPA].

Guidelines

Pursuant to this authority the Council has issued four sets of successively more detailed guidelines on the operation of the impact statement process. The most recent set of guidelines is appended to this report (40 CFR Part 1500 (1974), Appendix I).⁵

The Council has supplemented its guidelines with a series of memoranda to the heads of all federal agencies, letters to individual agencies and informal meetings with agencies to discuss problems of NEPA implementation.⁶

The Council is currently considering drafting new guidelines for several impact statement issues. These issues include: the "small-handle" problem; improved or revised coordination with state agencies for EIS review and comment; revised emergency or waiver procedures; and program impact statements.⁷

It has been suggested that CEQ could help agencies improve the content of EIS's by constructing special guidelines for different types of frequently recurring projects, i.e., offshore oil leases, airports and water resource programs.⁸ The policy of the Council, however, is to let the individual agencies write specific guidelines if they so desire. CEQ asserts that it does not have the staff capability to propose the absolute state of the art for impact assessments on specific projects.⁹ This policy is based upon one of NEPA's primary objectives, which is to require all agencies to develop their own methods and procedures for environmental assessments.

New guidelines have also been proposed by commentators on NEPA as a method to force agency consideration of Section 101 policy goals. NEPA implementation has been criticized as overly procedural and there is a perceived need for integrating NEPA's substantive policy goals into the impact statement procedures required under 108(2) (C).¹⁰

In the opinion of its General Counsel however, CEQ has no authority by statute on Executive Order to issue substantive guidelines. Moreover he feels it would be extremely difficult to determine what sort of substantive guidelines would be specific enough to be useful, yet general enough to apply to all Federal Agencies. CEQ is now considering a suggestion that an EIS should indicate how the policies of Section 101 are satisfied by a proposed federal action.¹¹

⁵ See, for general commentary on CEQ guidelines, Andrews, *supra* n. 4, p. 10; Liroff, pp. 59-62; and Lynch, "The CEQ Guidelines: Cautious Updating of the Environmental Impact Statement Process," 11 Cal. West. L. Rev. 297 (Winter 1975). For a discussion of the influence on the guidelines on court decisions see, Herbert F. Stevens, "The CEQ's guidelines and their influence on NEPA," 23 Catholic U. L. Rev. 547-573 (1974); and CEQ Memorandum, *supra*, n. 29.

⁶ Examples are a memorandum dated Feb. 10, 1976 on the length of impact statements; an explanatory memorandum on Scrap II dated March 8, 1976.

⁷ Interview.

⁸ Richard Carpenter, "The Adequacy of Scientific Information for the Implementation of the National Environmental Policy Act," paper presented at the CRS. Workshop on the National Environmental Policy Act, December 1975, p. 11.

⁹ Interview.

¹⁰ Richard, N. L. Andrews "NEPA in Practice: Environmental Policy or Administrative Reform?" pp. 22, 16, 34, paper presented at the CRS Workshop on the National Environmental Policy Act.

¹¹ Workshop on the National Environmental Policy Act, Dec. 1975. Suggestions made by Richard N. L. Andrews. *See*, CRS, *Workshop on the National Environmental Policy Act*, report prepared pursuant to the request of the Subcommittee on Fisheries and Wildlife Conservation and the Environment of the Committee on Merchant Marine and Fisheries, U.S. House of Representatives, Serial No. 94-E, 94th Cong., 2d sess., p. 8.

Review and Comment

An integral part of the Council's implementation of this NEPA requirement is the review of impact statements. NEPA states merely that CEQ is to receive the statements when they are made available to the President and the public; furthermore, Congress "did not intend for the Council to become involved in the daily decision making of federal agencies."¹² Yet, the Council has found that review of impact statements is necessary to identify weaknesses in agency 102(2) (C) procedures.

Moreover it has been suggested that the impact statement review "provides a means for CEQ to become involved in an environmentally partisan manner in debates within the Federal Government concerning the wisdom of individual project proposals."¹³ Interviews with CEQ staff reinforce this view; the "stewardship of the EIS process" provides CEQ with most of its day to day contact with agencies. Within the bureaucracy, impact statements are recognized as CEQ's "turf."¹⁴ Therefore CEQ can use its procedural oversight function as a wedge to enter into agency policymaking. Thus by commenting on EIS's and federal projects as well as through informal encouragement CEQ attempts to enforce NEPA's policy goals.¹⁵

During the six years of NEPA's existence the Council has received draft and final impact statements on over 7,000 "federal actions." (See tables, Appendix J). Statements come into the Council at a rate of over one hundred per month, where they are logged in and listed for the public's information in the monthly "102 Monitor".

No staff members review impact statements exclusively, but twelve of the twenty-three professionals are NEPA liaisons to individual agencies. They are involved in giving advice before statements are written as well as in reviewing the drafts submitted to CEQ. The staff does not attempt to look at every single statement received by the Council. Gross procedural errors are checked for on most statements and are easily corrected—usually by a phone call. Review of the adequacy of a statement's discussion of impacts is more unusual however; formal comments were made on only about 30 statements in 1975.¹⁶

When the Council wishes to obtain a modification or to complain about a statement deficiency, the staff reviewer will first attempt to persuade the NEPA liaison of the agency in question over the telephone. Although CEQ has no enforcement powers, the staff reviewer may emphasize that ignoring the Council's informal advice will result in a formal complaint—usually in a letter to the departmental secretary. The threat of litigation by environmental groups also serves CEQ as an indirect stick for NEPA implementation.¹⁷

At present, CEQ reviews and comments primarily on those impact statements which concern "celebrated issues," large water resources projects or major agency programs.

¹² Senate Committee on Interior and Insular Affairs, "National Environmental Policy Act of 1969," S. Rep. No. 91-296, 91st Cong., 1st. Sess. 24 (1969) [hereinafter cited as S. 1075 Report]

¹³ Liroff, p. 66.

¹⁴ Interview.

¹⁵ Interview.

¹⁶ Council on Environmental Quality, 102 monitor, Volume 6, No. 3, p. 102, April 1976. (Appendix—Tabular Summary of 102 Statements filed through March 31, 1976 by Agency and Table by years).

¹⁷ Interview.

Section 309 of the Clean Air Act provides for formal referrals of impact statements from EPA to the CEQ. These referrals are fairly rare; in the past six months the Council received two. (A system in which the heads of all agencies would make "309-type" referrals to the Council has been mentioned as a possible alternative procedure.)¹⁸

Impact statements are continually checked for length, scope and focus. The Council is concerned that overly long and technical impact statements are never read and therefore are useless to decision-makers.¹⁹

This issue and other problems with agency implementation of NEPA are discussed in a recent CEQ report.²⁰ The Council conducted a year long review, using questionnaires on the EIS process, NEPA-related litigation, and state experiences with NEPA. The review serves not only as an oversight or status report but as a defense of NEPA. For example, sections of the report address complaints about delays caused by the EIS process and NEPA related costs.²¹

One other problem which although it is not an official CEQ policy, a staff member evinced concern about is a growing tendency of some agencies to hire private contractors to do environmental impact analyses. This prevents the agency from developing in-house expertise and subverts the purposes of NEPA.²²

Both the Chairman of CEQ and his staff complain that Congress does not pay enough attention to environmental impact statements and the comments of CEQ when they fund projects or attempt to expedite administrative proceedings.²³

As part of its role as defender of NEPA and the 102(2) (C) process the Council must expend efforts refuting charges and tracking down misinformation about NEPA, even at White House policy meetings.²⁴ CEQ staff are aware of a continuing need to assure the public that the EIS process works and feel that additional resources would be useful to minimize public criticism and improve the results of the process.²⁵

Enforcement

Despite its continuing efforts and primarily because it lacks statutory enforcement authority, the Council has played a secondary role in the federal courts in the enforcement of the impact statement requirement of NEPA. A student of NEPA, writing in early 1973 noted that:

The CEQ has not filled in the vacuum left by OMB's lax enforcement of the 102 process. . . . Because the CEQ lacks the institutional power of OMB over funding, it is uncertain how CEQ can assure effective agency compliance with Execu-

¹⁸ Clean Air Act, 42 USC § 1857h-7 (1970); Interview (Interior's EIS on OCS lease/sales in the Gulf of Alaska and Corps of Engineers EIS on Marcos Island) Under Sec. 309. EPA must review and comment publicly in writing on a wide array of federal actions related to the scope of its authority including all actions covered in impact statements. If any action, legislative proposal or regulation commented upon is deemed "unsatisfactory" from the standpoint of public health, welfare, or environmental quality, the matter must be "referred" to CEQ. See, generally, Dolgin and Guilbert eds., "Federal Environmental Law," pp. 267-273, n. 12S.

¹⁹ Interview. See also, Memorandum from Russell Peterson to Heads of Agencies dated February 10, 1976. Guideline 1500.8(a).

²⁰ Council on Environmental Quality, "Environmental Impact Statements: An Analysis of Six Years' Experience by Seventy Federal Agencies, March 1976."

²¹ ID, pp. 26-35, 43-49.

²² Interview.

²³ Interviews. Council staff referred to "Pork Barrel Projects" and worried that Congress might by legislation create an "adequate" EIS out of a statement which CEQ and EPA found inadequate (FPC's Alaska Natural Gas Transportation EIS).

²⁴ Interview.

²⁵ Interview.

tive Order 11514 and the CEQ Guidelines. It is significant that the Council still does not disapprove particular agency procedures, statements, relying instead on informal consultation. . . . So far as administrative enforcement of NEPA is concerned, therefore, the responsibility for policing the agencies appears to have fallen between two stools. . . . In these circumstances, responsibility has fallen back on the courts.²⁶

The Council appears to have accepted this secondary role. During House oversight hearings in 1975 Chairman Peterson was asked if he believed NEPA would be strengthened if CEQ had the authority to require the filing of environmental impact statements even when an agency has determined that a statement need not be prepared. Chairman Peterson replied that such a responsibility could be counterproductive, not only because it would require a tremendous increase in the Council's staff but also because:

. . . many of the agencies would see us as more of a judicial body looking over their shoulder, and thus not take their assignment as seriously . . . NEPA has to become a way of life in the agency. If some other agencies, like ourselves, tried to police the set-up we might do more harm than good.²⁷

Although the Council does not want to become a judicial body it is not loathe to use the threat of litigation to bargain with recalcitrant agencies.²⁸ Moreover, in recognition of the importance of federal court decisions in the interpretation of NEPA, CEQ's General Counsel endeavors to promote CEQ's guidelines by discussing pending NEPA cases with Department of Justice attorneys. There is no formal mechanism for consultation of CEQ by the Justice Department. Often in the past the trial was handled at the regional level and positions were set which were contrary to the Council's. Although appeals were handled in Washington and often coordinated with CEQ it was difficult for the appellate division to argue different positions than had been argued below. CEQ is now consulted at the early stages of most major litigation.²⁹

The Council's guidelines do not have the force and effect of law and therefore do not have to be followed by a court considering NEPA compliance. However, most of the circuits have given varying degrees of deference to the guidelines in their opinions. In one unusual case, the Supreme Court has given great weight to a CEQ letter on the issue of the sufficiency of the information supplied in an EIS.³⁰

Problems

Problems with the EIS process in general must be distinguished from problems with CEQ's role within the EIS process. The success or failure of the former does not perfectly reflect the success or failure of CEQ as an institution. Since the impact statement requirement's

²⁶ Anderson, pp. 12, 13.

²⁷ U.S. Congress, House of Representatives, National Environmental Policy Act Oversight, Hearings before the Subcommittee on Fisheries and Wildlife Conservation and the Environment of the Committee on Merchant Marine and Fisheries, 94th Cong., 1st sess., Ser. No. 94-14, pp. 224-226.

²⁸ See text at n. 44, *supra*.

²⁹ Interview.

³⁰ See n. 29, *supra*. See also "Comments: Supreme Court Ushers in New Era for CEQ in *Warm Springs Case*," 4ELR 10130 (1974). The case is unusual because CEQ rarely comments in public on the adequacy of EIS content.

history has been chronicled and analyzed by many others it has not been detailed in this report. However a few issues concerning the Council's role in the 102(2) (C) process can be identified.

In summary, these are:

(1) The Council's guidelines are purely advisory by the terms of the Executive Order. Court decisions have treated them inconsistently; only one circuit has given them legal effect. Federal agencies therefore, are uncertain as to how closely they must follow the guidelines. This leads to uneven implementation of 102(2) (C).

(2) The Council's system for reviewing draft and final impact statements is inadequate. Only a few statements are chosen for detailed review, and the choices are overwhelmingly determined by publicity. A counter argument may be that CEQ is not responsible under current law for detailed statement review. The Council was assigned oversight of the 102(2) (C) procedures while EPA, under Section 309 of the Clean Air Act, was meant to oversee the substantive content of impact statements. The fact remains that substantive, detailed review is not being done by anyone for the majority of impact statements now written.

(3) The Council's inability to enforce the EIS process has left the responsibility to the courts. Since adjudication is necessarily focused on individual situations and fact patterns the court's interpretation of NEPA's responsibilities has not always been crystal clear to the agencies. This has led to implementation problems. For example, overly long and diffuse impact statements may result from cautious agency lawyers' attempts to satisfy every element of various judicial opinions.

However, the court's enforcement of NEPA has been vigorous; they have helped to define the requirements of the act and may have pushed many agencies toward full compliance faster than the Council could have. Adjudication also affords a direct opportunity for public involvement in federal decisionmaking.

(4) Over emphasis of the procedural aspects of NEPA by the Council and the courts has caused the policy goals of Section 101 to suffer. Although this emphasis may have been necessary in order to effect a radical change in agency decision-making methods, many feel that the Council should now start fleshing out the bones of NEPA.

ENVIRONMENTAL EDUCATION, RESEARCH AND MONITORING

Background

The Council's second major duty under NEPA is to provide the public, including Congress, with information about the environment. Title II directs the Council to assist and advise the President in the preparation of an Environmental Quality Report to be transmitted to the Congress each year.³¹

CEQ is authorized to gather and analyze information on the conditions and trends in the environment, to conduct research relating to environmental quality and to document and define changes in the natural environment.³² Title I calls upon all federal agencies to con-

³¹ Secs. 201, 204(1).

³² Sec. 204 (2) (5) (6). The authority under 204(5) to conduct investigations, studies and research relating to "ecological systems" was transferred to EPA in Reorg. Plan No. 3 of 1970. CEQ retained "environmental quality" responsibility. However, this separation is probably of questionable importance in practice. Interviews.

sult with the Council in identifying and developing "methods and procedures, . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations."³³

The statute creating the Office of Environmental Quality (which is encompassed by the Council) confers additional research and education responsibilities on the CEQ. These include the development of environmental quality criteria and the review of existing systems for monitoring and predicting environmental changes. EQIA also gives the Council sole source authority for contracting with public or private researchers.³⁴

The President's Executive Order on NEPA and the Council re-emphasizes the research responsibilities of CEQ, particularly the development of indices and monitoring systems.³⁵ Finally, the Federal Nonnuclear Energy Research and Development Act of 1974³⁶ gives CEQ the responsibility of informing the public about the environmental issues related to nonnuclear energy research and development.

The authorizing legislation makes it clear that the Council is intended to perform three educational roles. The first is to conduct research relating to environmental quality. The second is to develop and improve the basic tools of environmental research. The third is to provide information to the public on the state of the environment.

As to the first two roles, the legislative history of NEPA repeatedly identifies "the need for sounder environmental information." The "shortcomings of available environmental information" and the "lack of established legitimacy of environmental expertise" were recognized as impediments to environmental decisionmaking.³⁷ For example, Lawrence Rockefeller observed during early Congressional hearings on environmental policy:

The area where greater knowledge would help is the resource decisionmaking process. Many Federal Resource decisions are still made on a benefit-cost ratio which does not adequately reflect environmental factors. We know—or are told—precisely what dollar benefits are for flood control, irrigation, or highway traffic—but no one can tell us the cost of various alternatives in long-term environmental values.³⁸

While the authors of NEPA designed the environmental impact statement requirement to force consideration of environmental factors in federal decisionmaking, they also wanted the content of impact statements to be scientifically and technically credible so as to be helpful to the decisionmakers. Thus CEQ was enjoined to improve the "state of the art" of environmental analysis.

Congress also intended for the CEQ to be a body within the government to which citizens could turn for objective information on the state of the environment.³⁹ This involves the roles of environmental

³³ Sec. 102 (b).

³⁴ Sections 203(d) (3) (4) (6) (7) ; Section 203(e).

³⁵ Sections 3(3) and (k).

³⁶ 42 U.S.C. §§ 5901-7.

³⁷ Dreyfus and Ingram, p. 7.

³⁸ U.S. Congress, "Hearings to Discuss National Policy for the Environment," before the Committee on Interior and Insular Affairs, U.S. Senate, and Committee on Science and Astronautics, U.S. House of Representatives, Joint House-Senate Colloquium, 90th Congress, 2nd Sess. 6 (1968).

³⁹ S. 1075 Report (See n. 39) ; Liroff p. 71.

ombudsman and educator. Executive Order No. 11514 expanded this third role by granting CEQ the power to convene public hearings on matters of environmental significance.⁴⁰

The job of environmental ombudsman created a problem, however, because it conflicted with the Council's primary function as Presidential advisor. At the outset the Council had to choose between conflicting directives. "On the one hand the Council was directed to advise the President confidentially concerning ongoing federal programs although it was not to interfere in agencies' daily decisionmaking. On the other hand, it was supposed to be a fact-finder and a source of public information on environmental problems. . . . It could be restrained . . . in its public involvement in environmental controversies . . . or it could publicly reveal its views . . . and face the possibility of being shut off from effective participation in White House policymaking."⁴¹

Chairman Train, while testifying at the 1970 House oversight hearings that CEQ should not publicize its comments on environmental impact statements, observed:

I think, gentlemen, to be very honest about it, there is a major dilemma here. . . . We cannot be . . . the public ombudsman on environment and at the same time be confidential advisors to the President on the development of policy. It is just an impossibility to fill both these roles.⁴²

The Council chose to give priority to its advisory role. This choice created some constituency problems for the Council in its early years. Environmental lawyer Joseph Sax commented in 1970 that "the Council's role will in essence be that of a spokesman for the Administration, rather than—as had been widely hoped—a spokesman for the public, openly expressing views which might at times be at odds with the Administration's position and thereby using its prestige and public constituency as leverage to induce the Administration to adopt sounder environmental policies."⁴³

In the words of one staff member the Council decided that more could be achieved through the use of "molasses" than through "vinegar", i.e., that private encouragement would promote the environmental consciousness of a federal agency better than public castigation.⁴⁴

The Council's past and current activities as environmental policy advisor will be discussed in a later section of this report; we will now consider how the Council has been performing its three-part role of environmental educator.

General Research ⁴⁵

The Council has never had the staff required to perform completely "in-house" research on environmental quality. Instead it does some "in-house" work and uses contract funds to supplement its staff. Most of the Council staff persons are involved in research from 5 to 50% of their time in the capacity of senior researchers. They define what is to

⁴⁰ Sec. 3(d).

⁴¹ Liroff, p. 73.

⁴² U.S. Congress, House of Representatives, Hearings on Federal Agency Compliances with Section 102(2)(c) and Section 103 of the National Environmental Policy Act of 1969, before the Subcommittee on Fisheries and Wildlife Conservation of the House Committee on Merchant Marine and Fisheries, 91st Congress, 2nd Session, Pt. I at 56 (1970). [Hereinafter cited as Dingell 1970 Oversight Hearings].

⁴³ Joseph Sax, *Defending the Environment*, 92-93 (Consumers Union ed., 1971) quoted in Liroff, p. 78, 79.

⁴⁴ Liroff, p. 80.

⁴⁵ Except where footnotes indicate otherwise this section is based on an interview with an economic and research director at CEQ.

be done in a particular project, monitor it closely through meetings, and participate to some extent in research and writing.

The Council also shares its projects with other agencies. By arranging joint research projects CEQ is able to choose its own topics and to expand its research funds. Thus although approximately 25% of CEQ's current budget is spent on contract studies, the Council actually manages contracts representing three times that amount.⁴⁶

Topics for studies are chosen by the senior staff members and the council members who look for issues that have been neglected or that fall in between agency jurisdictions. The personal interests of staff and their conception of the importance of an issue are also important criteria.

On the other hand, many studies are requested by Congress and the President and other topics simply emerge as issues and demand attention by the Council.

Not including the Council's "status and trends" work, discussed below, the contract studies can be divided into five categories.

The first group of studies relate to the environmental effects of energy. The second group concern land use issues: the social, environmental and economic costs of development; the secondary effects of federal actions on land use; the effectiveness of land use controls. Studies on the economic impacts of federal environmental policy comprise a third category and studies on NEPA implementation a fourth. The fifth group is the catch-all category for studies done for Congress or the President or on issues that "come up." A list of published studies and current contracts is appended to this report, along with computations of the total amounts of contract money spent per category. (Appendix K).

In general, the research done in all these categories is policy-oriented. It involves the interpretation and analysis of data rather than primary research.

The Council decides at the outset of a study who its audience will be (usually an agency but often Congress, state and local officials and the general public) and tailors the study's design, writing and distribution to that audience. The studies are used either as tools for policy making or to inform the public about important environmental issues. An example of the latter study would be *The Costs of Sprawl* and of the former, *Interceptor Sewers and Suburban Sprawl*.

Several problem areas can be identified in the Council's general research program. The Council has for example, done little research aimed at improving the content of environmental impact statements. Although this type of research would seem to be mandated by the Council's responsibility for the implementation of NEPA it has relied on the individual agencies to develop specific guidelines for EIS preparation.⁴⁷ It must be noted however that the inability of scientific groups to agree on substantive standards of EIS quality or on preferred methodologies demonstrate how extraordinarily difficult this issue is.

⁴⁶ Interview.

⁴⁷ Many agencies, (NRC, DOT, HUD, Corps of Engineers) have done their own research directed at producing substantive handbooks for EIS preparation. Others (ERDA, EPA) have begun to do so. CEQ has done studies of secondary land use impacts which have been useful for improving EIS content.

Recently the Council has stepped up its efforts in this area. CEQ has developed, in conjunction with several other agencies, the MERES Energy model, "a detailed data base to facilitate evaluation of the environmental impacts from energy systems,"⁴⁸ as well as *Energy Alternatives* detailed and comprehensive document analyzing the economic, environmental and efficiency aspects of all major existing and emerging energy alternatives. MERES has provoked a great deal of interest among the agencies but it is still too new to have had any demonstrable effect on the content of their impact statements.

The Council has just begun a major study of environmental impact assessment which it hopes to complete by 1977. The study is aimed at shortening impact statements and improving their content. The major product of the study will be a handbook for professionals undertaking environmental assessments, with an executive summary for decision-makers who wish to consider adapting the recommended procedures.⁴⁹

A second problem is the incomplete information available to CEQ and other federal agencies about what research is being done within the federal government. The Council has no formal means either of coordinating environmental research or of keeping track of ongoing research.

Of course there are informal lines of communication. The Council receives most of its information through its NEPA responsibilities and through involvement in interagency projects. Nevertheless, at least one staff member felt that duplication of effort was common in environmental research and that there were serious gaps in federal research efforts.

Ostensibly the CEQ could "become a major institution for the stimulating, funding, and coordinating" of environmental research. Dr. Lynton Caldwell has suggested that full implementation of Title II of NEPA would provide legal authority for this major role. He cites Sections 204 (5) and (6) supplemented by Section 205(2) directing the Council "... to utilize to the fullest extent possible, the services, facilities, and information . . . of public and private agencies and organizations and individuals. . . ." as the sources of this authority.⁵⁰

There are two types of coordination which the Council or another federal agency might do. One is active—actually allocating federal monies and making decisions about what should be studied; the other is passive—monitoring the research being done and providing a clearinghouse or informational service for federal researchers.

The Council has had some experience with active coordination. A few years ago it was asked by OMB to allocate EPA pass-through money for environmentally related energy research. Now, under the Non-nuclear Energy Research and Development Act, CEQ is analyzing federal research in that field. In the future, this may develop into a coordination role.

A project which will provide a national inventory of biological monitoring programs has been sponsored by CEQ along with the

⁴⁸ The MERES (Matrix of Environmental Residuals for Energy Systems) is described in the Sixth Annual Report at p. 670, and in the Fifth Annual Report at p. 746.

⁴⁹ In connection with this project the Council is sponsoring a Symposium on Biological Evaluation of Environmental Impact in June 1976.

⁵⁰ Lynton K. Caldwell, "The National Environmental Policy Act: Retrospect and Prospect," p. 17, paper presented at the C.R.S. Workshop on the National Environmental Policy Act, December 1975.

National Marine Fisheries Service, ERDA, and the U.S. Fish and Wildlife Service.⁵¹ This project is a sample of what is being done to provide information on all types of environmental research, a job which could occupy CEQ full time.

The task of overall federal research coordination—either active or passive—is not sought by the Council however. Staff members interviewed acknowledged that coordination would be useful but said that it was not a top priority.⁵² Moreover, given the Council's present staff and budget limitations, it was felt to be an impossible task.⁵³

A third problem area, and one which affects all of the Council's activities, is the size of its staff. Because CEQ manages its contract studies so closely, it is essential that the responsible staff member know a great deal about a topic before the study is contracted out. This limits the types of research to topics within available staff expertise and has caused some projects to suffer when staff leave the Council.

An area which is not being studied by CEQ is the implementation of air and water pollution control laws. The staff interviewed felt that there was a need to work on secondary impacts and do cross-media analysis of federal pollution legislation.⁵⁴ However the area is too technical for the Council to study on its own and the EPA has not been responsive to the idea of a joint project.⁵⁵

Environmental monitoring, environmental health, economic environmental analysis and the Council's new responsibilities under the Non-nuclear Research and Development Act also warrant more attention than the Council's small staff is able to give.⁵⁶

Monitoring and Indices Research

Although (by statute and Executive Order) the Council was assigned the mission of improving the quality of information on environmental conditions and trends and making such information useful in national policy making, it had made little progress until recently.

In the past the Annual Environmental Quality Report has encompassed all of the Council's monitoring work. In its 1972 Annual Report⁵⁷ the Council wrote that it was working with other federal agencies in attempting to develop meaningful indices of environmental quality. To stimulate discussion and analysis, the Council published in the 1972 Report, tentative, untested indices as well as a preliminary list of those aspects of the environment which should be monitored regularly.

In 1974 the Council reported limited progress, except in the development of air quality indices, and concluded that—

The present unsatisfactory state of our development of environmental indices and other interpretive techniques has therefore been due both to the difficulties of the problem and to a cautious attitude of the Federal Government and the scientific community.⁵⁸

⁵¹ Interview.

⁵² Interview.

⁵³ Interview.

⁵⁴ (Because of budget constraints and changed priorities in recent years) Interview.

⁵⁵ Interview.

⁵⁶ Interview.

⁵⁷ See generally "Status and Trends" chapters in the 2nd and 4th Annual Reports, "The Quest for Environmental Indices and Forecasting" chapters in the 3rd Annual Report and the "Environmental Conditions and Trends" chapters in the 5th and 6th Annual Reports.

⁵⁸ Council on Environmental Quality, The Fifth Annual Report of the Council on Environmental Quality, 1974, p. 333.

While the above statement is no doubt accurate, an additional problem at CEQ was manpower. Its monitoring efforts have increased since a scientist interested in the area joined the Council's staff in 1974.

The staff problems referred to earlier not only involved the size of the staff but also their educational backgrounds. In its early years the Council was criticized as being composed of more lawyers (8 out of 23 professionals) than scientists (4). The House Subcommittee on Fisheries and Wildlife Conservation recommended in a 1971 Oversight Report that "the future growth of CEQ in staff and budget must establish a strong interdisciplinary capability in environmental sciences". (See Appendix L for detailed recommendations.) Today, excluding the Office of General Counsel and the Council members, eleven professionals hold degrees in physical sciences and six in social sciences.⁵⁹ (See charts, Appendix M.)

The monitoring program is now expanding beyond the Annual Report to include the publication of two annual or biennial reports entitled "Environmental Quality Indicators" and the "National Environmental Statistical Report." The former will be a "national environmental briefing document"—a graphic summary of environmental trends, factors influencing these trends and natural resources designed for the layman. The latter report, summarizing statistics in a multidisciplinary tabular format, will be an environmental and natural resources analog to the Statistical Abstract of the U.S. Designed for use by professionals who need interdisciplinary data: this report will provide a backup for "Environmental Quality Indicators."⁶⁰

A second component of the Council's monitoring program is the development of a Uniform Air Pollution Index by its Interagency Task Force on Air Quality Indicators (published in April 1976) and a study of water quality indicators.⁶¹

The Biomonitoring Inventory and MERES System noted earlier in this report are also part of the Council's monitoring program.

Public Education and Information

The Council provides the public with information on environmental matters through the publication of its Annual Environmental Quality Report. In addition, those contract studies which are not exclusively related to Federal agency policy have produced special reports which have added to the public's perception of environmental issues.⁶² By Executive Order, the Council may hold public hearings and conferences on the environment⁶³ and it is required under the Non-Nuclear Act to sponsor an annual hearing on the environmental aspects of federal energy research.⁶⁴

CEQ's contract studies have been discussed above in relation to its research function. The subjects of some of its "public education" reports are: ocean dumping, toxic substances, land use, the taking issue,

⁵⁹ U.S. Congress, House of Representatives, Administration of the National Environmental Policy Act, Report by the Committee on Merchant Marine and Fisheries, Rep. No. 92-316, 92nd Cong. 1st sess., pp. 40-45; Letter from CEQ Staff Director, March 10, 1976.

⁶⁰ Interview.

⁶¹ Interview, see description: Appendix O.

⁶² Robert Cahn, "Impact of NEPA on Public Perception of Environmental Issues," p. 15, paper presented at the CRS Workshop on the National Environmental Policy Act, Dec. 1975.

⁶³ Exec. Order 11514 Sec. 3(d).

⁶⁴ The Federal Nonnuclear Research and Development Act of 1974, Sec. 11 (42 U.S.C. § 5801).

urban sprawl, outer continental shelf oil and gas, energy conservation, offshore nuclear power plants, and leisure homes and recreational development. The Council conducted public hearings on continental shelf offshore oil development in 1973 and on the ERDA energy program in 1976.⁶⁵

The Annual Reports required by Sec. 201 of NEPA are the Council's most widely disseminated contributions to public environmental education. More than 200,000 copies of the first five Annual Reports had been distributed by CEQ or sold by the Government Printing Office as of last year.⁶⁶

The entire CEQ staff is involved in the preparation of *Environmental Quality* part-time over a four to six month period. A managing editor and chapter editors are appointed from the staff and employees make contributions in their own areas of expertise. In the past, staff has analyzed data provided by other agencies; however, this year the Council has begun to use its own data, developed under the monitoring program discussed above.⁶⁷

There is an established review and comment procedure for the annual report. Preliminary drafts are sent to several agencies where technical staff double check information. OMB has the standard clearance authority to excise any statements which may be contrary to Administration policy or have adverse budgetary implications. They have never exercised this power,⁶⁸ however, in 1972 three chapters of the Annual Report were "censored" by advisors to President Nixon for policy reasons. Reporters were allowed to come in and read the chapter drafts; two have since been expanded and reworked into CEQ studies.⁶⁹

In general the Annual Reports have been judged extremely useful by schools, environmental groups, industry and citizens.⁷⁰ Whether or not they have fulfilled the role envisioned by Congress is a separate question however. (For example, see Congressional Research evaluation of the 1974 Report, Appendix P.)

In the language of NEPA, Section 201, the Annual Report—

shall set forth (1) the status and condition of the major . . . environmental classes of the Nation . . . ; (2) current and foreseeable trends in the quality . . . of such environments and the effects of the trends . . . ; (3) the adequacy of available natural resources . . . ; (4) a review of the programs and activities . . . of the Federal Government, the State and local governments, and non-governmental entities or individuals, with particular reference to their effect on the environment . . . ; (5) a program for remedying the deficiencies of existing programs and activities, together with recommendations for legislation.

The Council's status and trends work was discussed in the preceding section on monitoring. This aspect of the report was criticized in *The*

⁶⁵ Cahn (42 U.S.C. § 5801), p. 15.

⁶⁶ Id.

⁶⁷ Interview.

⁶⁸ Interview.

⁶⁹ Interview. The published studies are "Energy and the Environment—Elective Power" and "The Delaware River Basin—an Environmental Assessment". The third chapter concerned recycling and the problem of economic discrimination in transportation rates, etc. against recycled materials and suggested tax credits to encourage recycling.

⁷⁰ Cahn, op. cit., p. 15.

American Economic Review as being diffuse and disorganized. The authors thought this failure resulted because CEQ had adopted the broadest possible definition of the term environment. The authors also complained that the Annual Report should have a statistical appendix with summaries of available data, explanations of data and indications of its gaps and inadequacies and termed the 1974 attempt "belated and inadequate."⁷¹

The Council's statistical publications introduced this year seem to meet those criticisms. Also, the Annual Report for 1976 is much shorter than previous reports.⁷²

The report has never contained an analysis of the adequacy of available natural resources for current and future national needs. The Staff Director's explanation for this omission is simply that the Council has never employed anyone who knew about the area. Although other agencies keep records of resource availability none do any policy analysis⁷³ as intended by NEPA.

In May 1973 Chairman Dingell of the House Subcommittee on Fisheries and Wildlife Conservation and the Environment wrote to Chairman Train to request that CEQ organize "an interagency task force to assess current Federal activity in developing information concerning resource adequacy." Mr. Dingell noted that:

"Many Committees of the Congress have long been concerned with the question of resources adequacy due to the pressures of population growth, industrial expansion and our ever rising standard of living . . . the need for full scale, systematic study of U.S. resources was recognized by the Congress when it established the Council on Environmental Quality. In order to avoid future dependence on ad hoc studies, the legislation that established CEQ stated that its annual report to Congress should include information "on the adequacy of available natural resources . . . In each of CEQ's three annual reports, however, only cursory treatment has been given to this vital subject."⁷⁴

Approximately one year later the Council's task force completed its study on existing sources of data, the state of the art in resource supply and demand projections and proposals for a continuing assessment in this field. The report concluded that "public needs for the information are apparently currently fulfilled adequately."⁷⁵

Finally, the Annual Report was intended to present the President's program of environmental legislation and policy recommendations. This purpose has been of decreasing importance in recent volumes of Environmental Quality. The 1970 report boldly listed environmental policy needs in its concluding chapter. The second volume (1971) discussed the advantages of effluent fees as tools of environmental policy. But the last four volumes "have had almost no discussion of alternative policies, except occasional favorable comments on specific bills previously proposed by the president. One gets the strong impression that [Environmental Quality] has become very much the status re-

⁷¹ Edwin S. Mills and Frederick M. Peterson. "Environmental Quality: The First Five Years," *American Economic Review*, p. 261, June 1975 (the authors are of the opinion that issues other than pollution problems are "peripheral").

⁷² Council on Environmental Quality, the Seventh Annual Report of the Council on Environmental Quality, 1976.

⁷³ Interview (the 1974 and 1975 Reports cover this subject in tables).

⁷⁴ U.S. Congress, House of Representatives, Growth and its Implications for the Future, Part 4, Hearings before the Subcommittee on Fisheries and Wildlife Conservation and the Environment of the Committee on Merchant Marine and Fisheries, 93rd Cong., 2nd Sess., Ser. No. 93-35, p. 689.

⁷⁵ *Ibid.*, p. 693.

port of CEQ and very little the policy statement of the Administration."⁷⁶

A staff person interviewed offered two explanations for the Annual Report's dearth of policy recommendations. The first was that the policy formulation schedule in the Executive Branch is not coordinated with the Annual Report time schedule. Policy proposals come out of the White House from January through March while the Report is published in August or September. The second and fundamental reason is the Council's judgment that it would never get the Report out if it were a vehicle of policy formulation because the process would become bogged down with arguments.⁷⁷

CEQ's responsibility to provide the public with information, carries with it the duty to consult with the public about the environmental issues which concern them. The Council has endeavored to comply with Section 205 of NEPA by meeting periodically for question and answer sessions with various interest groups in Washington and with local groups in their home communities. According to the Chairman, the lines of communication between CEQ and environmental public interest groups are very strong, as are relations with scientists, industry, academia and labor.⁷⁸

The Federal Nonnuclear Energy Research and Development Act of 1974 added three new responsibilities to the Council's existing duties. Section 11 of the Act directs the Council on Environmental Quality to evaluate the non-nuclear energy R&D programs in terms of their attention to energy conservation, the environmental consequences of application of new technologies, and environmental protection. The Council is also instructed to hold annual public hearings on the conduct of energy research and development and the probable environmental effects of the application of energy technologies. Finally, CEQ must consider the probable environmental consequences of trends in the development and application of energy technologies in its Annual Report.⁷⁹ Thus Section 11 amplifies the Council's duty to inform the public about important environmental issues.

This section of the act is unusual legislation because it instructs CEQ, an agency within the Executive branch, to report directly to Congress rather than the President on the activities of other agencies (ERDA and EPA) in the Executive branch. The Council staff member in charge of the NNERDA program felt that this would place CEQ in an awkward position in presenting its final report.⁸⁰

Since NNERDA became effective the Council has had one staff member working full time and one half time on its Section 11 activities. In addition, a substantial amount of work has been contracted out.⁸¹

Public hearings were held in Washington, D.C., Detroit, and Los Angeles, in September 1975. A report on those hearings was published and distributed to Congress in January 1976.⁸²

⁷⁶ Mills and Peterson, p. 260.

⁷⁷ Interview.

⁷⁸ Interview.

⁷⁹ 42 U.S.C. § 5901 (1974). See, The Council on Environmental Quality, The 79th Annual Report, 1976, pp. 116-122.

⁸⁰ Interview. Draft report will be available in June 1976 but the final report may be held up by the agency review and clearance process. In particular, staff anticipates that OMB will not agree with CEQ's assessment that conservation R&D is not getting enough money compared to resource development R&D.

⁸¹ Interview.

⁸² Council on Environmental Quality, Report on 1975 Public Hearings, Environmental Effects and Energy Conservation Aspects of the Nonnuclear Energy Research, Development, and Demonstration Programs, January 1976.

The 6th Annual Environmental Quality Report contains the Council's first discussion of the environmental impacts of trends in the application and development of energy technologies.⁸³

The Council is now drafting its first report to Congress assessing the non-nuclear research and development programs at ERDA and EPA in terms of their attention to conservation and the environment. The report will look at the agencies' planning and management systems for research and development, focusing on specific technologies as case examples. As an assessment technique, CEQ first ascertains what environmental and conservation programs are necessary for a given technology and then compares its findings with the programs developed by ERDA and EPA. The agencies have received preliminary results of CEQ's assessments to aid them in forming their programs.

Concurrently, CEQ's energy staff is working with ERDA to assure that ERDA complies with the National Environmental Policy Act as it makes research decisions.⁸⁴

Problems

The following list is a summary of the problems, described above, which have affected CEQ's environmental education and monitoring programs:

- (1) Little research has been done aimed at improving the scientific content of environmental impact statements.
- (2) The Council has incomplete information about environmental and ecological research being done in other parts of the federal government.
- (3) Research projects may suffer due to staff turnover.
- (4) Research topics have been limited by available staff expertise as the development of a monitoring program.
- (5) The Annual Report does not conform to NEPA's requirements.

ENVIRONMENTAL POLICY ADVISOR TO THE PRESIDENT

Background

One of the primary roles envisioned by the Congress for the Council on Environmental Quality was advisor to the President. Title II of NEPA is replete with instructions to the Council to review federal programs, to develop and recommend national and international environmental policies and to make studies and reports for the President on matters of policy and legislation.⁸⁵ Executive Order No. 11514 of 1970 further details the Council's duties with respect to advising the President and proposing legislation on environmental quality.⁸⁶

In 1972 one commentator noted that the CEQ had been given a combination of powers by law and Executive Order which were "held by few if any agencies in the executive office, except the Office of Management and Budget, to guide and influence the policies and actions of other federal agencies." Moreover, CEQ's actions had been

⁸³ Council on Environmental Quality, The 6th Annual Report, 1975, pp. 426-438.

⁸⁴ Interview.

⁸⁵ Section 204(3)(4) (7) and (8).

⁸⁶ Section 1, Sec. 3 (a) (b) (c) (f) (g).

taken "in the context of a clear mandate from both Congress and the President to harmonize federal actions with environmental quality goals."

However,

The limits of CEQ's powers must also be noted CEQ is not an environmental czar, nor even a new national resources planning board. It has no authority to veto the actions of any other agency, nor even to require an agency to file the detailed statement of environmental impact required by Section 102(2) (C) of NEPA. It does have the power to review agency actions for environmental impact and to give advice both to the agency and to the President. But in any intractable conflict with another agency, CEQ's power is limited to its ability to persuade the President to take action.⁸⁷

The Council on Environmental Quality was modeled on the Council of Economic Advisers created by the Employment Act of 1946.⁸⁸ While the Nixon Administration preferred a small advisory body in the executive office, Congressman Dingell and Senator Jackson were "committed to a body with sufficient stature to be influential in the executive branch and with sufficient staff capability to monitor and advise upon the state of the environment."⁸⁹

A study of the Council of Economic Advisers concluded that the relationship between CEA and the President is moved more by the President's acceptance of CEA than by his dependence upon it and is more personal than institutional.⁹⁰

Like the CEA, the CEQ must persuade the Administration to accept its positions rather than force its views upon it. The Council is only one of many advisors who must compete for the President's attention. The result, more often than not, is government by consensus, with CEQ thrashing out positions with OMB, the Domestic Council or the Energy Resources Council.

Then, whether or not its advice is accepted, it must explain and defend the President's economic or environmental programs to Congress. Nevertheless, CEQ potentially could have more influence than CEA for two reasons.

First, CEQ has a stronger legal basis for consulting with agencies, because Executive Order 11514 assigned CEQ oversight responsibilities for the environmental impact statement process. This process has no procedural counterpart in the legislation that established CEA.

Second, CEQ has a larger natural constituency, comprised of numerous active environmental groups, often intensely concerned with specific issues of federal environmental policy.⁹¹

On the other hand, CEA has the strength of a discipline which is recognized and within which there is a measure of agreement upon paradigms to support its policy arguments.

⁸⁷ Andrews, "The Council on Environmental Quality: An Evaluation," pp. 8-9.

⁸⁸ 60 Stat. 23 (1946).

⁸⁹ Dreyfus and Ingram, p. 11.

⁹⁰ Edward Flash, *Economic Advice and Presidential Leadership: The Council of Economic Advisors* (1965), at 292, 313, quoted in Liroff.

⁹¹ Liroff, p. 78.

The degree of success or failure the Council has had in its executive advisory role over the past six years is not easy to document. Some tangible evidence may be found in the environmental legislation proposed by the Administration and in the record of consultations between the Council and the President on matters of environmental policy.

Activities

During the Nixon administration there were few occasions for personal contact between the President and his Council. The Council met with President Nixon only twice in three years, both times to present the annual Environmental Quality Report. Chairman Russell Train saw the President more frequently, particularly in connection with his work on international conventions and bilateral agreements. In its routine work the Council dealt with a presidential assistant for environmental matters who reported to John Erlichman, the Director of the Domestic Council Staff, who then reported to the President.⁹²

In 1974, President Nixon resigned and was replaced by Gerald Ford. In the more accessible Ford White House, Chairman Russell Peterson has been personally consulted by President Ford on a number of occasions.⁹³ In hearings before the Senate Appropriations Committee in 1975 Chairman Peterson testified that during the "past several months" he had had three private sessions with President Ford and about a dozen sessions with the President in larger groups.⁹⁴ His testimony at the 1976 hearings also noted about twelve meetings over the course of the year. The subject matters discussed included the world population problem, strip mining legislation, use of poisons on public lands and the annual Environmental Quality Report.⁹⁵

Chairman Peterson testified that the Council had not been involved in the executive decision to waive supersonic noise and air pollution standards to permit the Concorde to land in the United States, although it did review EPA and FAA's impact statements on the subject.⁹⁶

The Chairman also participates in group policy discussions at Domestic Council and Energy Resources Council meetings. However, because of the current political climate, with its high degree of confrontation between development and environmental goals, White House discussions often pit "everybody against the 2 Russes,"⁹⁷ and CEQ is frequently called upon to defend the National Environmental Policy Act before other officials. Although the Council is listened to, its batting average for accepted ideas is not high.⁹⁸

Moreover, although the CEQ may have better access to the White House, the environmental policy legislation actually proposed by the Administration has decreased significantly in quantity and quality since 1973.

When the Council was created in early 1970 environmental matters were given high priority at the executive level. The President's first

⁹² Ibid, pp. 81, 82.

⁹³ Ibid, p. 82.

⁹⁴ U.S. Congress, Senate, Department of Housing and Urban Development, and Certain Independent Agencies Appropriations, Hearings before the Senate Committee on Appropriations, H.R. 8070, 94th Congress, 1st Session, p. 546 (hereinafter cited as 1976 Appropriations Hearings).

⁹⁵ Id.

⁹⁶ Id.

⁹⁷ (Russell Peterson and Russell Train) Interview.

⁹⁸ Interview; he also said that many of CEQ's ideas which are rejected by the Administration "turn up" on the Hill.

annual message on the environment demonstrated this interest. "The time has come when we can wait no longer to repair the damage already done, and to establish new criteria to guide us in the future."⁹⁹

The Council and its staff recognized that the "window was open wide" for environmental legislation during the first two or three years of the Nixon Administration. The President's 1971 Environmental Program was CEQ's work from beginning to end.¹⁰⁰ The staff drafted legislation and shepherded it through the executive clearance process.

In 1971 and 1972 the Administration sent 25 environmental legislative proposals to the Hill. Five additional proposals were sent in 1973.¹⁰¹

For many reasons 1971 was the "high-water mark" of CEQ legislative success.¹⁰² After that the climate began to change within the bureaucracy and the Administration. Staff interviewed felt that OMB responded to a general feeling among many agencies that a strong environmental policy voice was not desirable in the Executive Office¹⁰³ by circumscribing the activities of the CEQ. At the same time, "troubled by national economic problems, and perhaps by industry complaints . . . the Administration consciously began to moderate its environmental rhetoric."¹⁰⁴

The President's 1972 Environmental Program was a joint OMB and CEQ effort apparently produced more through arguments than through cooperation. The 1973 Program, which combined environmental and natural resources legislation, reflected OMB's influence even more strongly.¹⁰⁵

As Chairman Peterson testified at a recent CEQ appropriations hearing, no comprehensive environmental program has come out of the Executive Office in the past three years. President Ford's letters to Congress introducing the annual Environmental Quality Report are the only formal statement of Administration environmental policy.¹⁰⁶ Any legislative proposals or policy recommendations that are made during the year are found sprinkled throughout the "Events" chapter of the Annual Report.

President Ford's environmental policy is one of balancing economic development with environmental protection¹⁰⁷—in reality an attempt to temper environmental initiatives in his Administration. Chairman Peterson on the other hand, has asserted that the values of environmental protection and economic development can co-exist successfully. An example of the Council's attempt to defend environmental protection policies is the publicity CEQ has given the number of jobs created by the pollution control industry compared with the jobs lost by factory shutdowns due to environmental regulation.

Faced with a lack of receptivity within the White House, the Council no longer aggressively initiates environmental policy legislation but has shifted its emphasis to working backstage with agency decision

⁹⁹ Liroff, p. 82.

¹⁰⁰ Interview.

¹⁰¹ Erica L. Dolgin and Thomas G. P. Guilbert, eds., *Environmental Law Institute, Federal Environmental Law*, 1974, pp. 133-136.

¹⁰² Liroff, p. 84.

¹⁰³ Interview.

¹⁰⁴ Liroff, p. 84.

¹⁰⁵ Interview.

¹⁰⁶ 1976 Appropriations Hearings (n. 121).

¹⁰⁷ *Id.*

makers. CEQ staff attribute this de minimis legislative effort to two causes. One is a general consensus at the Council that most of the major environmental legislation has been passed or is pending in Congress. (The Council does not have the personnel required to follow through on every proposal for environmental legislation and will usually depend on the line agency most involved with a bill to do so. Where there is no concerned line agency, as in bills on Land Use Toxic Substances, and Power Plant Siting, CEQ will push the legislation.¹⁰⁸)

The second reason is the changing climate for environmental initiatives within the bureaucracy and the Administration. Because of external factors such as the energy crisis and the recession, the Council is more on the defensive in its advisory role now than it was in its early years.¹⁰⁹

The fact that OMB controls the coordination of environmental legislation within the Administration aggravates this situation. The Council used to perform this role and some staff members believe it still should.¹¹⁰ In the view of CEQ staff, there has been a breakdown in the legislative clearance process which began with the disintegration of the Nixon Administration and has continued in the Ford Administration. Partially because of staff changes at OMB, CEQ and other agencies can no longer be assured that a bill approved by OMB will "fly" at the White House or that a bill which OMB has reservations about won't be signed before it has been revised. As a result a bill which was labelled "Administration" legislation, like the recent proposed Energy Facilities Siting Bill, was opposed by every concerned agency except FEA. Thus CEQ has found it less and less useful to propose legislation.¹¹¹

[CEQ staff also places some "blame for its weakened advisory role on the Congress because NEPA, unlike most laws, has no advocates on the Hill. They feel that Congress has not held important oversight hearings which would let the Administration know it was serious about NEPA implementation.¹¹² A list of NEPA oversight hearings appears in Appendix Q.]

Although its style and methods may have changed and its tangible influence diminished, CEQ is still attempting to perform an advisory function within the executive branch. One NEPA scholar has written positively about the Council's potential in this area:

It may be suggested that CEQ's influence within the executive branch diminished because of decreased administration interest in environmental matters and increased concern with inflationary pressures and energy supplies. But such a conclusion can only be reached with considerable uncertainty. To be sure, in 1973 new administration environmental initiatives did not seem to flow as quickly as once they did. However, some concern for environmental impacts had begun to take root in the federal bureaucracy and this rising environmental consciousness was accompanied by recognition that CEQ was a useful source within the executive branch for

¹⁰⁸ Interview.

¹⁰⁹ Interview.

¹¹⁰ Interview—One problem with returning this function to CEQ is that "environment" must be defined.

¹¹¹ Interview.

¹¹² Interview.

guidance and information concerning environmental decision-making. CEQ, in its advisory capacity, was perhaps in a better position to promote environmental considerations than if it itself were a line environmental protection agency.¹¹³

The Chairman and Staff of the Council are eager to list CEQ's accomplishments as executive advisor. Yet the differences between the Council's early years and the present are apparent. Some of the current activities of the Council are discussed below.

At present, most of the Council's advisory meetings with agency heads are tied to the environmental impact statement process. Through these the Council sometimes has a broader influence on agency policy. Chairman Peterson has had ten meetings with Secretary Kleppe on impact statement issues which he feels have resulted in a new attitude of cooperation from the Interior Department. For example, both CEQ and EPA worked hard to strengthen environmental safeguards in Interior's coal leasing regulations and succeeded in getting Interior to accept their proposals. Later, Interior's support of CEQ drafted amendments to the Outer Continental Shelf Lands Act helped the Council convince the Administration to propose them.¹¹⁴

Another way in which the Council attempts to influence federal policy is through OMB. As a member of the Office of the President, Chairman Peterson takes part in "Director's Reviews" of agency budgets. Here he has tried to encourage more research on environmental data by EPA and to provide more manpower at BLM to improve the quality of public lands. These recommendations however inevitably collide with OMB's interest in reducing the federal budget.¹¹⁵

CEQ's current work in federal land use policy reflects the Council's decision to work quietly within the executive branch to help make existing federal policies more rational.

One example is CEQ's work with the EPA on the land use effects of EPA's Waste Water Treatment Grant Program. The CEQ study on *Interceptor Sewers and Suburban Sprawl* demonstrated the secondary effects which sewer systems have on development patterns and led to new EPA regulations.

Another aspect of CEQ's internal work with agencies has been a "low key effort" to encourage agencies to improve coordination of their respective land use planning assistance programs.

At present the federal government has a plethora of specialized land use planning programs. These include, The Comprehensive Planning Assistance (701) Program, Housing Act of 1954 (HUD); Outdoor Recreation Program, Land and Water Conservation Fund Act of 1965 (Interior); The Area Wide Water Planning Program (208-EPA); the Coastal Zone Management Program (Commerce); and the Urban Mass Transportation Program and Highway Planning and Research (DOT).

In the past, the two favorite approaches to coordination (as characterized by a CEQ staffer) have been (1) to put all programs into one

¹¹³ Liroff, p. 88.

¹¹⁴ Interview. The amendments would separate exploration and development decisions and provide a hiatus after the discovery of off-shore oil for the applicant to make satisfactory plans to deal with secondary socio-economic on-shore impacts.

¹¹⁵ Interview.

big program, or (2) to find the "lowest common denominator" in the programs and arrive at a document that everyone can agree on. Neither of these approaches have been successful. In contrast, CEQ's effort focuses on one-on-one planning agreements. Under this approach two agencies meet to discuss their planning programs and ultimately produce a written expression of their intent to utilize common documents and data and coordinate programs to the maximum extent possible.

CEQ's role in this coordinating effort is to bring the agencies together and act as a neutral advisor. Since the CEQ itself has no ongoing programs it might wish to protect or expand, the agencies are not suspicious of its motives in proposing such an interagency agreement. There are currently 2-3 dozen interconnecting agreements.¹¹⁶

Finally, the Council's advisory duties include advising the President on international environmental cooperation. NEPA directs all agencies of the Federal Government to "recognize the worldwide and long-range character of environmental problems and where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment."¹¹⁷ This section combined with Sec. 204 creates implicit authority for the Council to review, appraise, and recommend federal policies and the programs for international cooperation. Executive Order 11514, Sec. 3(g) makes this authority explicit. The Council is to "[a]dvise and assist the President and the agencies in achieving international cooperation for dealing with environmental problems, under the foreign policy guidance of the Secretary of State."

CEQ's international activities are conducted by the Council Members and by the Chairman's Assistant for International and Scientific Affairs and his staff.¹¹⁸

The Council was given innovative responsibilities from its statutory authorities. Therefore, it has worked on developing policy and initiating international environmental programs for other agencies to operate. For example the State Department's environmental office was created to operate programs which CEQ initiated.

The Council's continuing responsibility is to make sure that the global environment is adequately considered in U.S. foreign policy. Otherwise, where there are gaps in agency responsibilities or where it has unique expertise, CEQ will perform substantive or operational duties.¹¹⁹

CEQ is involved in both bilateral and multilateral efforts at international cooperation. The "Agreement for Cooperation and Environmental Protection" signed between Russia and the U.S. at President Nixon's Summit meeting in Moscow was created and initially implemented by CEQ.

CEQ initiatives were responsible for the Ocean Dumping Convention, the International Endangered Species Convention and the World

¹¹⁶ Interview.

¹¹⁷ Sec. 102(2) (E).

¹¹⁸ The international Staff consists of one person on a one year reimbursable detail from State and one from USIA, and an international lawyer from the General Counsel's staff. He also has one scientific assistant and two temporary staff members handling contract studies on American Wildlife and International Fisheries.

¹¹⁹ Interview.

Heritage Trust Convention. The international office worked on the development of the U.S. position for the U.N. Conference on the Human Environment at Stockholm.¹²⁰ Chairman Peterson was a representative at the U.N. Habitat conference last summer. Although the State Department had originally conceived of the conference as strictly concerned with housing, at the time of the Chairman's interview, CEQ had changed the conference emphasis to one of a "holistic view" of the quality of life.¹²¹

The Council is conducting a study of U.S. policy toward the living resources of the Sea and is participating in the Law of the Sea Conferences. A final example is CEQ's work on international and domestic population problems. Chairman Peterson considered population to be the single most important variable in the quality of life. He served as deputy head of the U.S. delegation to the World Population Conference in Bucharest.¹²²

The Council's international office also assists the domestic staff on environmental impact statement issues relating to the Department of State and AID. Until recently these agencies considered their foreign programs to be exempt from the requirements of Sec. 102(2)(c). Backed up by recent court decisions, CEQ has actively pushed AID to develop NEPA procedures during the past year.¹²³

An additional statutory responsibility which should be mentioned in the context of CEQ's advisory role is to—

... review and appraises the various programs and activities of the Federal Government in the light of the policy set forth in Title I of this Act (NEPA) ... and to make recommendations to the President with respect thereto . . .¹²⁴

Pursuant to this language, the Office of the Staff Director lists as one of its duties "evaluating federal activities which have a potential effect on the environment."¹²⁵ Properly fulfilled, this review responsibility could provide a significant back-up to the Council's advisory duties. Yet, both staff and Council members admit that CEQ has neglected this section of NEPA.¹²⁶ The Council's ability to make a more thorough review and appraisal of federal activities is severely limited not by attitude but by the size of its staff.¹²⁷ Staff review is not very comprehensive and tends to focus on specific issues which are brought to CEQ's attention. Because of staffing constraints and perhaps for other policy reasons, the Council has made a decision to channel its manpower toward other statutory duties and to ignore its review and evaluation responsibilities.

Similarly, inadequate staffing affects the Council's performance of its advisory role and hampers its ability to effect changes across a wide spectrum of bureaucratic policy by limiting the number of issues the Council can become involved in. This practical problem should be considered along with any political problems connected with the Council's advisory role.

¹²⁰ Interview.

¹²¹ Interview.

¹²² Interview.

¹²³ Interview.

¹²⁴ NEPA Sec. 204(3).

¹²⁵ Letter from staff director, March 10, 1976.

¹²⁶ Interviews.

¹²⁷ Interview.

Problems

There are several areas for concern in the Council's record as environmental advisor to the Executive Branch. Before attempting to assess this record however, it would be prudent to solicit the views of other agencies and of public interest groups. It is also important to remember that by statutory design, CEQ is part of the Office of the President. Therefore its strength and ability to promote environmental policies are primarily determined by the sympathies and beliefs of the President and his staff.

Briefly stated, these are the problems which this section of the report has introduced:

(1) There have been no environmental programs produced by the Executive office with the Council's assistance in the past three years.

(2) OMB rather than CEQ controls the coordination of all environmental legislation.

(3) CEQ's limited size has forced it to concentrate on "front and center" problems and to neglect comprehensive and long range policy review.

(4) CEQ must promote a relatively new set of values without the influence or authority of a line or mission agency as it competes for the acceptance of its proposals.

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APPENDIXES

APPENDIX A

National Environmental Policy Act

THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969, AS AMENDED

42 USC Chap. 55, §§ 4321 ff

CHAPTER 55.—NATIONAL ENVIRONMENTAL POLICY

Sec.

4321. Congressional declaration of purpose.

SUBCHAPTER I.—POLICIES AND GOALS

- 4331. Congressional declaration of national environmental policy.
- 4332. Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts.
- 4333. Conformity of administrative procedures to national environmental policy.
- 4334. Other statutory obligations of agencies.
- 4335. Efforts supplemental to existing authorizations.

SUBCHAPTER II.—COUNCIL ON ENVIRONMENTAL QUALITY

- 4341. Reports to Congress; recommendations for legislation.
- 4342. Establishment; membership; Chairman; appointments.
- 4343. Employment of personnel, experts and consultants.
- 4344. Duties and functions.
- 4345. Consultation with the Citizen's Advisory Committee on Environmental Quality and other representatives.
- 4346. Tenure and compensation of members.
- 4347. Authorization of appropriations.

§ 4321. Congressional declaration of purpose

The purposes of this chapter are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

Pub.L. 91-190, § 2, Jan. 1, 1970, 83 Stat. 852.

SUBCHAPTER I.—POLICIES AND GOALS

§ 4331. Congressional declaration of national environmental policy

(a) The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

(b) In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(c) The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

Pub.L. 91-190, Title I, § 101, Jan. 1, 1970, 83 Stat. 852.

§ 4332. Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all agencies of the Federal Government shall—

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by subchapter II of this chapter, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on—

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of Title 5, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other States or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal

land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction;

(E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(G) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(I) assist the Council on Environmental Quality established by subchapter II of this chapter.

Pub. L. 91-190, Title I, § 102, Jan. 1, 1970, 83 Stat. 853; Pub. L. 94-83, Aug. 9, 1975, 89 Stat. 424.

Codification note: Pub. L. 94-83 inserted a new subsection (D) and redesignated original subsections (D)-(H) as (E)-(I) respectively.

§ 4333. Conformity of administrative procedures to national environmental policy

All agencies of the Federal Government shall review their present statutory authority, administrative regulations, and current policies and procedures for the purpose of determining whether there are any deficiencies or inconsistencies therein which prohibit full compliance with the purposes and provisions of this chapter and shall propose to the President not later than July 1, 1971, such measures as may be necessary to bring their authority and policies into conformity with the intent, purposes, and procedures set forth in this chapter.

Pub. L. 91-190, Title I, § 103, Jan. 1, 1970, 83 Stat. 854.

§ 4334. Other statutory obligations of agencies

Nothing in section 4332 or 4333 of this title shall in any way affect the specific statutory obligations of any Federal agency (1) to comply with criteria or standards of environmental quality, (2) to coordinate or consult with any other Federal or State agency, or (3) to act, or refrain from acting contingent upon the recommendations or certification of any other Federal or State agency.

Pub. L. 91-190, Title I, § 103, Jan. 1, 1970, 83 Stat. 854.

§ 4335. Efforts supplemental to existing authorizations

The policies and goals set forth in this chapter are supplementary to those set forth in existing authorizations of Federal agencies.

Pub. L. 91-190, Title I, § 105, Jan. 1, 1970, 83 Stat. 854.

SUBCHAPTER II.—COUNCIL ON ENVIRONMENTAL QUALITY

§ 4341. Reports to Congress; recommendations for legislation

The President shall transmit to the Congress annually beginning July 1, 1970, an Environmental Quality Report (hereinafter referred to as the "report") which shall set forth (1) the status and condition of the major natural, man-made, or altered environmental classes of the Nation, including, but not limited to, the air, the aquatic, including marine, estuarine, and fresh water, and the terrestrial environment, including, but not limited to, the forest, dryland, wetland, range, urban, suburban, and rural environment; (2) current and foreseeable trends in the quality, management and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation; (3) the adequacy of available natural resources for fulfilling human and economic requirements of the Nation in the light of expected population pressures; (4) a review of the programs and activities (including regulatory activities) of the Federal Government, the State and local governments, and non-

governmental entities or individuals, with particular reference to their effect on the environment and on the conservation, development and utilization of natural resources; and (5) a program for remedying the deficiencies of existing programs and activities, together with recommendations for legislation.

Pub. L. 91-190, Title II, § 201, Jan. 1, 1970, 83 Stat. 854.

§ 4342. Establishment; membership; Chairman; appointments

There is created in the Executive Office of the President a Council on Environmental Quality (hereinafter referred to as the "Council"). The Council shall be composed of three members who shall be appointed by the President to serve at his pleasure, by and with the advice and consent of the Senate. The President shall designate one of the members of the Council to serve as Chairman. Each member shall be a person who, as a result of his training, experience, and attainments, is exceptionally well qualified to analyze and interpret environmental trends and information of all kinds; to appraise programs and activities of the Federal Government in the light of the policy set forth in subchapter I of this chapter; to be conscious of and responsive to the scientific, economic, social, ethic, and cultural needs and interests of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

Pub. L. 91-190, Title II, § 202, Jan. 1, 1970, 83 Stat. 854.

§ 4343. Employment of personnel, experts and consultants

(a) The Council may employ such officers and employees as may be necessary to carry out its function under this chapter. In addition, the Council may employ and fix the compensation of such experts and consultants as may be necessary for the carrying out of its function under this chapter, in accordance with sections 3109 of Title 5 (but without regard to the last sentence thereof).

(b) Notwithstanding section 3679(b) of the Revised Statutes (31 U.S.C. 665 (b)), the Council may accept and employ voluntary and uncompensated services in furtherance of the purposes of the Council.

Pub. L. 91-190, Title II, § 203, Jan. 1, 1970, 83 Stat. 855; Pub. L. 94-52, July 3, 1975, 89 Stat. 258.

§ 4344. Duties and functions

It shall be the duty and function of the Council—

(1) to assist and advise the President in the preparation of the Environment Quality Report required by section 4341 of this title;

(2) to gather timely and authoritative information concerning the conditions and trends in the quality of the environment both current and prospective, to analyze and interpret such information for the purpose of determining whether such conditions and trends are interfering, or are likely to interfere, with the achievement of the policy set forth in subchapter I of this chapter, and to compile and submit to the President studies relating to such conditions and trends;

(3) to review and appraise the various programs and activities of the Federal Government in the light of the policy set forth in subchapter I of this chapter for the purpose of determining the extent to which such programs and activities are contributing to the achievement of such policy, and to make recommendations to the President with respect thereto;

(4) to develop and recommend to the President national policies to foster and promote the improvement of environmental quality to meet the conservation, social, economic, health, and other requirements and goals of the Nation;

(5) to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality;

(6) to document and define changes in the natural environment, including the plant and animal systems, and to accumulate necessary data and other information for a continuing analysis of these changes or trends and an interpretation of their underlying causes;

(7) to report at least once each year to the President on the state and condition of the environment; and

(8) to make and furnish such studies, reports thereon, and recommendations with respect to matters of policy and legislations as the President may request.

Pub. L. 91-190, Title II, § 204, Jan. 1, 1970, 83 Stat. 855.

§ 4345. Consultation with the Citizen's Advisory Committee on Environmental Quality and other representatives

In exercising its powers, functions, and duties under this chapter, the Council shall—

(1) consult with the Citizens' Advisory Committee on Environmental Quality established by Executive Order numbered 11472, dated May 29, 1969, and with such representatives of science, industry, agriculture, labor, conservation organizations, State and local governments and other groups, as it deems advisable; and

(2) utilize, to the fullest extent possible, the services, facilities, and information (including statistical information) of public and private agencies and organizations, and individuals, in order that duplication of effort and expense may be avoided, thus assuring that the Council's activities will not unnecessarily overlap or conflict with similar activities authorized by law and performed by established agencies.

Pub. L. 91-190, Title II, § 205, Jan. 1, 1970, 83 Stat. 855.

§ 4346. Tenure and compensation of members

Members of the Council shall serve full time and the Chairman of the Council shall be compensated at the rate provided for Level II of the Executive Schedule Pay Rates. The other members of the Council shall be compensated at the rate provided for Level IV or ¹ the Executive Schedule Pay Rates.

Pub. L. 91-190, Title II, § 206, Jan. 1, 1970, 83 Stat. 856.

§ 4346a. Acceptance of Travel Reimbursement

The Council may accept reimbursements from any private nonprofit organization or from any department, agency, or instrumentality of the Federal Government, any State, or local government, for the reasonable travel expenses incurred by any officer or employee of the Council in connection with his attendance at any conference, seminar, or similar meeting conducted for the benefit of the Council.

Pub. L. 94-52, July 3, 1975, 89 Stat. 259.

§ 4346b. Expenditures for International Travel

The Council may make expenditures in support of its international activities, including expenditures for: (1) international travel; (2) activities in implementation of international agreements; and (3) the support of international exchange programs in the United States and in foreign countries.

Pub. L. 94-52, July 3, 1975, 89 Stat. 259.

§ 4347. Authorization of appropriations

There are authorized to be appropriated to carry out the provisions of this chapter not to exceed \$300,000 for fiscal year 1970, \$700,000 for fiscal year 1971, and \$1,000,000 for each fiscal year thereafter.

Pub. L. 91-190, Title II, § 207, Jan. 1, 1970, 83 Stat. 856.

Table of Parallel Citations

PL 91-190, 83 Stat. 852—The National Environmental Policy Act of 1969		Sec.	42 USC
Sec.	42 USC	204 (NEPA §204)	4344
2 (NEPA §2)	4321	205 (NEPA §205)	4345
101 (NEPA §101)	4331	206 (NEPA §206)	4346
102 (NEPA §102)	4332	207 (NEPA §209)	4347
103 (NEPA §103)	4333	PL 94-52, 89 Stat. 258	
104 (NEPA §104)	4334	2 (NEPA §203(b))	4343(b)
105 (NEPA §105)	4335	3 (NEPA §207)	4346a
201 (NEPA §201)	4341	(NEPA §208)	4346b
202 (NEPA §202)	4342	PL 94-83, 89 Stat. 424	
203 (NEPA §203(a))	4343(a)	—	4332(D)

¹ So in original.

APPENDIX B

Environmental Quality Improvement Act



THE ENVIRONMENTAL QUALITY IMPROVEMENT ACT OF 1970, PUBLIC LAW 91-224,
APRIL 3, 1970

TITLE II—ENVIRONMENTAL QUALITY (OF THE WATER QUALITY IMPROVEMENT ACT OF
1970)

Short title

SEC. 201. This title may be cited as the "Environmental Quality Improvement Act of 1970."

Findings, declarations, and purposes

SEC. 202. (a) The Congress finds—

(1) that man has caused changes in the environment;

(2) that many of these changes may affect the relationship between man and his environment; and

(3) that population increases and urban concentration contribute directly to pollution and the degradation of our environment.

(b) (1) The Congress declares that there is a national policy for the environment which provides for the enhancement of environmental quality. This policy is evidenced by statutes heretofore enacted relating to the prevention, abatement, and control of environmental pollution, water and land resources, transportation, and economic and regional development.

(2) The primary responsibility for implementing this policy rests with State and local governments.

(3) The Federal Government encourages and supports implementation of this policy through appropriate regional organizations established under existing law.

(c) The purposes of this title are—

(1) to assure that each Federal department and agency conducting or supporting public works activities which affect the environment shall implement the policies established under existing law; and

(2) to authorize an Office of Environmental Quality, which, notwithstanding any other provision of law, shall provide the professional and administrative staff for the Council of Environmental Quality established by Public Law 91-190.

Office of Environmental Quality

SEC. 203. (a) There is established in the Executive Office of the President an office to be known as the Office of Environmental Quality (hereafter in this title referred to as the "Office"). The Chairman of the Council on Environmental Quality established by Public Law 91-190 shall be the Director of the Office. There shall be in the Office a Deputy Director who shall be appointed by the President, by and with the advice and consent of the Senate.

(b) The compensation of the Deputy Director shall be fixed by the President at a rate not in excess of the annual rate of compensation payable to the Deputy Director of the Bureau of the Budget.

(c) The Director is authorized to employ such officers and employees (including experts and consultants) as may be necessary to enable the Office to carry out its functions under this title and Public Law 91-190, except that he may employ no more than ten specialists and other experts without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and pay such specialist and experts without regard to the provisions of chapter 51 and subchapter 111 of chapter 53 of such title relating to classification and General Schedule pay rates, but no such specialist or expert shall be paid at a rate in excess of the maximum rate for GS-18 of the General Schedule under section 5330 of title 5.

(d) In carrying out his functions the Director shall assist and advise the President on policies and programs of the Federal Government affecting environmental quality by—

(1) providing the professional and administrative staff and support for the Council on Environmental Quality established by Public Law 91-190;

(2) assisting the Federal agencies and departments in appraising the effectiveness of existing and proposed facilities, programs, policies, and activities of the Federal Government, and those specific major projects designated by the President which do not require individual project authorization by Congress, which affect environmental quality;

(3) reviewing the adequacy of existing systems for monitoring and predicting environmental changes in order to achieve effective coverage and efficient use of research facilities and other resources;

(4) promoting the advancement of scientific knowledge of the effects of actions and technology on the environment and encourage the development of the means to prevent or reduce adverse effects that endanger the health and well-being of man;

(5) assisting in coordinating among the Federal departments and agencies those programs and activities which affect, protect, and improve environmental quality;

(6) assisting the Federal departments and agencies in the development and interrelationships of environmental quality criteria and standards established through the Federal Government;

(7) collecting, collating, analyzing, and interpreting data and information on environmental quality, ecological research, and evaluation.

(e) The Director is authorized to contract with public or private agencies, institutions, and organizations and with individuals without regard to section 3618 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5) in carrying out his functions.

Report

SEC. 204. Each Environmental Quality Report required by Public Law 91-190 shall, upon transmittal to Congress, be referred to each standing committee having jurisdiction over any part of the subject matter of the Report.

Authorization

SEC. 205. There are hereby authorized to be appropriated not to exceed \$500,000 for the fiscal year ending June 30, 1970, not to exceed \$750,000 for the fiscal year ending June 30, 1971, not to exceed \$1,250,000 for the fiscal year ending June 30, 1972, and not to exceed \$1,500,000 for the fiscal year ending June 30, 1973. These authorizations are in addition to those contained in Public Law 91-190.

Approved April 3, 1970.

APPENDIX C

Executive Order No. 11514

EXECUTIVE ORDER 11514, PROTECTION AND ENHANCEMENT OF ENVIRONMENTAL
QUALITY, MARCH 5, 1970

By virtue of the authority vested in me as President of the United States and in furtherance of the purpose and policy of the National Environmental Policy Act of 1969 (Public Law No. 91-190, approved January 1, 1970), it is ordered as follows:

SECTION 1. Policy. The Federal Government shall provide leadership in protecting and enhancing the quality of the Nation's environment to sustain and enrich human life. Federal agencies shall initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals. The Council on Environmental Quality, through the Chairman, shall advise and assist the President in leading this national effort.

SEC. 2. Responsibilities of Federal agencies. Consonant with Title I of the National Environmental Policy Act of 1969, hereinafter referred to as the "Act", the heads of Federal agencies shall:

(a) Monitor, evaluate, and control on a continuing basis their agencies' activities so as to protect and enhance the quality of the environment. Such activities shall include those directed to controlling pollution and enhancing the environment and those designed to accomplish other program objectives which may affect the quality of the environment. Agencies shall develop programs and measures to protect and enhance environmental quality and shall assess progress in meeting the specific objectives of such activities. Heads of agencies shall consult with appropriate Federal, State and local agencies in carrying out their activities as they affect the quality of the environment.

(d) Develop procedures to ensure the fullest practicable provision of timely public information and understanding of Federal plans and programs with environmental impact in order to obtain the views of interested parties. These procedures shall include, whenever appropriate, provision for public hearings, and shall provide the public with relevant information, including information on alternative courses of action. Federal agencies shall also encourage State and local agencies to adopt similar procedures for informing the public concerning their activities affecting the quality of the environment.

(c) Insure that information regarding existing or potential environment problems and control methods developed as part of research, development, demonstration, test, or evaluation activities is made available to Federal agencies, States, counties, municipalities, institutions, and other entities, as appropriate.

(d) Review their agencies' statutory authority, administrative regulations, policies, and procedures, including those relating to loans, grants, contracts, leases, licenses, or permits, in order to identify any deficiencies or inconsistencies therein which prohibit or limit full compliance with the purposes and provisions of the Act. A report on this review and the corrective actions taken or planned, including such measures to be proposed to the President as may be necessary to bring their authority and policies into conformance with the intent, purposes, and procedures of the Act, shall be provided to the Council on Environmental Quality not later than September 1, 1970.

(e) Engage in exchange of data and research results, and cooperate with agencies of other governments to foster the purposes of the Act.

(f) Proceed, in coordination with other agencies, with actions required by section 102 of the Act.

SEC. 3. Responsibilities of Council on Environmental Quality. The Council on Environmental Quality shall:

(a) Evaluate existing and proposed policies and activities of the Federal Government directed to the control of pollution and the enhancement of the environment and to the accomplishment of other objectives which affect the quality of the environment. This shall include continuing review of procedures employed in the development and enforcement of Federal standards affecting environmental quality. Based upon such evaluations the Council shall, where appropriate, recommend to the President policies of environmental quality and shall, where appropriate, seek resolution of significant environmental issues.

(b) Recommend to the President and to the agencies priorities among programs designed for the control of pollution and for enhancement of the environment.

(c) Determine the need for new policies and programs for dealing with environmental problems not being adequately addressed.

(d) Conduct, as it determines to be appropriate, public hearings or conferences on issues of environmental significance.

(e) Promote the development and use of indices and monitoring systems (1) to assess environmental conditions and trends, (2) to predict the environmental impact on proposed public and private actions, and (3) to determine the effectiveness of programs of protecting and enhancing environmental quality.

(f) Coordinate Federal programs related to environmental quality.

(g) Advise and assist the President and the agencies in achieving international cooperation for dealing with environmental problems, under the foreign policy guidance of the Secretary of State.

(h) Issue guidelines to Federal agencies for the preparation of detailed statements on proposals for legislation and other Federal actions affecting the environment, as required by section 102(2)(C) of the Act.

(i) Issue such other instructions to agencies, and request such reports and other information from them, as may be required to carry out the Council's responsibilities under the Act.

(j) Assist the President in preparing the annual Environmental Quality Report provided for in section 201 of the Act.

(k) Foster investigations, studies, surveys, research, and analyses relating to (i) ecological systems and environmental quality, (ii) the impact of new and changing technologies thereon, and (iii) means of preventing or reducing adverse effects from such technologies.

SEC. 4. *Amendments of E. O. 11472.* Executive Order No. 11472 of May 29, 1969, including the headings thereof, is hereby amended:

(1) By substituting for the term "the Environmental Quality Council", wherever it occurs, the following: "the Cabinet Committee on the Environment".

(2) By substituting for the term "the Council", wherever it occurs, the following: "the Cabinet Committee".

(3) By inserting in subsection (f) of section 101, after "Budget," the following: "the Director of the Office of Science and Technology."

(4) By substituting for subsection (g) of section 101 the following:

"(g) The Chairman of the Council on Environmental Quality (established by Public Law 91-190) shall assist the President in directing the affairs of the Cabinet Committee."

(5) By deleting subsection (c) of section 102.

(6) By substituting for "the Office of Science and Technology", in section 104, the following: "the Council on Environmental Quality (established by Public Law 91-190)".

(7) By substituting for "(hereinafter referred to as the 'Committee')" in section 201, the following: "(hereinafter referred to as the 'Citizen' Committee)".

(8) By substituting for the term "the Committee", wherever it occurs, the following: "the Citizens' Committee".

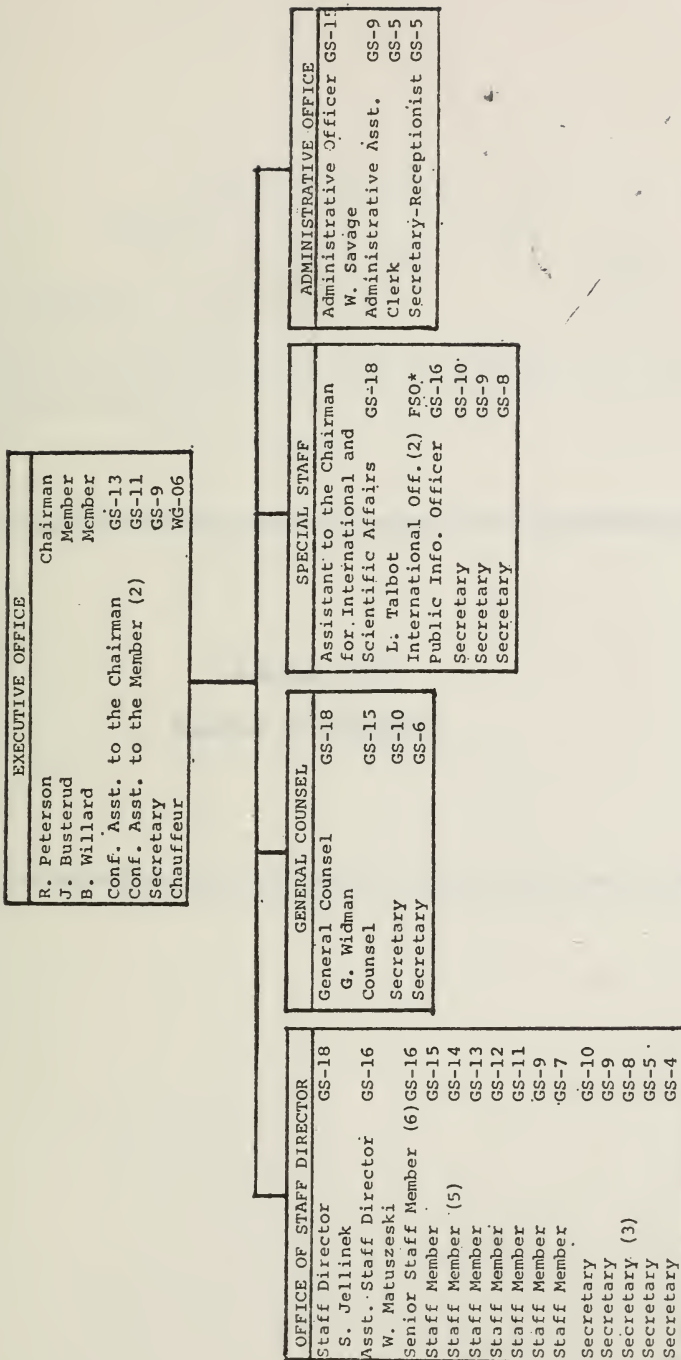
RICHARD NIXON.

THE WHITE HOUSE.

APPENDIX D

Organizational Chart

COUNCIL ON ENVIRONMENTAL QUALITY
ORGANIZATION CHART



* On detail from Department of State & USIS

February 1, 1976

APPENDIX E

Number of Personnel

THE
JOURNAL OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE

NUMBER OF PERSONNEL

Personnel status as of Apr. 30, 1976

	<i>Authorized</i>	<i>Actual</i>
Permanent personnel-----	44	43
Temporary personnel-----	17	16

Of the 43 permanent personnel, 23 are professionals and 20 are administrative or clerical. Of the 16 temporary personnel, 15 are professionals and 1 is clerical.

APPENDIX F

Citizen's Advisory Committee

THE
LIBRARY OF THE
MUSEUM OF COMPARATIVE ZOOLOGY
AT HARVARD UNIVERSITY

ADVISORY COMMITTEES OF THE COUNCIL ON ENVIRONMENTAL QUALITY

In addition to the Presidentially appointed Citizens' Advisory Committee on Environmental Quality, the Council has appointed the Advisory Committee on Alternative Automotive Power Systems. As required by Executive Order 11007, the members, a brief description of their functions, and the dates of their meetings are listed below.

CITIZENS' ADVISORY COMMITTEE ON ENVIRONMENTAL QUALITY

FUNCTIONS

Established by Executive Order 11472, May 29, 1969, this committee advises the President and the Council on Environmental Quality on all aspects of environmental quality and recommends actions by federal, state, and local governments and by the private sector. The Council consults with the Committee pursuant to section 205 of the National Environmental Policy Act (42 U.S.C. § 4345).

CHAIRMAN

Henry L. Diamond
Washington, D.C.

Governor Tom McCall
Salem, Oreg.

MEMBERS

Dr. Joseph Boyle
Los Angeles, Calif.

Jack B. Olson
Olson Boat Company
Wisconsin Dells, Wis.

Robert Cahn
Conservation Foundation
Washington, D.C.

Laurance S. Rockefeller
Chairman
Rockefeller Brothers Fund
New York, N.Y.

Richard M. Fairbanks III
Washington, D.C.

Willard F. Rockwell, Jr.
Chairman
Rockwell International
Pittsburgh, Pa.

James S. Gilmore, Jr.
President
Gilmore Broadcasting Corporation
Kalamazoo, Mich.

Lelan F. Sillin, Jr.
President
Northeast Utilities
Hartford, Conn.

Arthur Godfrey
Arthur Godfrey Productions
New York, N.Y.

Mrs. Thomas Waller
Bedford Hills, N.Y.
Mayor Pete Wilson
San Diego, Calif.

Dr. Joseph Haller
Holidaysburg, Penn.

Mrs. Terese T. Hershey
Houston, Tex.

MEETINGS

September 29-30, 1974, Madison, Wisconsin
February 14, 1975, Washington, D.C.
May 30, 1975, Washington, D.C.
September 29, 1975, Washington, D.C.

ADVISORY COMMITTEE ON ALTERNATIVE AUTOMOTIVE POWER SYSTEMS

FUNCTIONS

The Committee advises the Council on research and development programs and other technical progress toward developing low-emission, surface-vehicle power systems as alternatives to the present internal combustion engine.

CHAIRMAN

Dr. David V. Ragone
Dean of Engineering
University of Michigan
Ann Arbor, Mich.

EXECUTIVE SECRETARY

Saunders B. Kramer
Environmental Protection Agency
Ann Arbor, Mich.

APPENDIX G

Comparison of Authorizations and Appropriations

CHAPTER II
Comparison of Inductivism and Propositionalism

COMPARISON OF AUTHORIZATIONS AND APPROPRIATIONS

Data

Appropriation authorizations for the Council are contained in the National Environmental Policy Act of 1969, and the Environmental Quality Improvement Act of 1970. Only one appropriation is received thus the authorizations shown below are also combined.

Fiscal year	Authorization	Budget request	Appropriation
1970.....	\$800,000	\$350,000	\$350,000
1971.....	1,450,000	1,500,000	1,500,000
1972.....	2,250,000	2,300,000	2,300,000
1973.....	2,500,000	2,550,000	2,550,000
1974.....	2,500,000	2,466,000	2,466,000
1975.....	3,000,000	2,525,000	2,500,000
1976.....	3,000,000	2,750,000	2,736,000

APPENDIX H

Memo on Guideline Authority

Answer II
Memo on Guelphic Authority

EXECUTIVE OFFICE OF THE PRESIDENT,
COUNCIL ON ENVIRONMENTAL QUALITY,
Washington, D.C., March 25, 1975.

CEQ AUTHORITY RESPECTING FEDERAL AGENCY COMPLIANCE WITH THE
NATIONAL ENVIRONMENTAL POLICY ACT

This memorandum responds to the request of the Committee on Merchant Marine and Fisheries, Subcommittee on the Environment, for a report on judicial deference to the official statements and positions of the Council on Environmental Quality, and court interpretations of this authority as it relates to Federal agency compliance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321, *et seq.*).

Issues of CEQ's authority have arisen in two contexts: CEQ guidance to the agencies on the implementation of NEPA; and in CEQ advisory comments concerning the need for or the adequacy of specific environmental impact statements. The authority of CEQ to take such actions is based in NEPA, the Environmental Quality Improvement Act of 1970 (42 U.S.C. § 4371, *et seq.*) and Executive Order 11514 (March 5, 1970). This memorandum will examine these authorities and summarize their treatment by the courts.¹

A. AUTHORITIES

The basic source of authority is, of course, NEPA itself. While most of section 204 specifies the general duties and functions of CEQ, subsection 204(3) defines CEQ's role relative to the rest of the Executive Branch. Under this subsection, CEQ has two separate functions:

It shall be the duty and function of the Council—

(3) to review and appraise the various *programs* and *activities* of the Federal Government in the light of the policy set forth in title I of this Act for the purpose of determining the extent to which such programs and activities are contributing to the achievement of such policy, and to make recommendations to the President with respect thereto; (Emphasis added.)

Section 102 of NEPA imposes a correlative duty on the Federal agencies:

The Congress authorizes and directs to the fullest extent possible: . . . all agencies of the Federal Government shall—

* * * * *

(H) assist the Council on Environmental Quality established by Title II of this Act.

The legislative history of the National Environmental Policy Act, while displaying some difference in the viewpoints of the House and the Senate, supports a positive, constant role for CEQ in the review of Federal agency programs and activities. The House Merchant Marine and Fisheries Committee anticipated a strong CEQ review and appraisal role. It stated that CEQ should perform these functions by:

Maintaining a constant review of federal programs and activities as they may affect the policies [of the Act], and keeping the President informed . . . The environmental auditory function of the Council falls squarely within the functions specified in this subsection. [H. Rept. 91-378, 91st Cong., 1st Sess. (1969) 8].

The Senate, at the outset, envisioned a more general role:

The [Senate Interior] Committee does not view this direction to the Board [CEQ] as implying a project by project review and commentary on Federal programs. Rather, it is intended that the Board will periodically examine the general direction and impact of Federal programs and in relation to environmental

¹Only CEQ's authority with respect to the Environmental Impact Statement process will be examined. It will not treat those other powers which might be exercised through the Presidential advisory role of the Council and through its dealings with non-EIS inter-agency environmental problems.

trends and problems and recommend general changes in the direction or supplementation of such programs when they appear to be appropriate.

It is not the Committee's intent that the Board be involved in day to day decisionmaking processes of the Federal Government or that it be involved in the resolution of particular conflicts between agencies and departments. These functions can best be performed by the Bureau of the Budget, the President's inter-agency Cabinet-level Council on the Environment or by the President himself.

[S. Rept. 91-296, 91st Cong., 1st Sess. (1969) 24-25]

The Senate concept of a general review was preempted by subsequent events. CEQ was given specific review responsibility under Executive Order 11514, and the Cabinet-level Council on the Environment was dissolved. Moreover, shortly after passage of NEPA, Congress enacted the Environmental Quality Improvement Act of 1970, authorizing staff, funding and contracting authority for CEQ. The 1970 law also clarified CEQ's authority, providing, *inter alia* that

In carrying out his functions the [Chairman] shall assist and advise the President by

(2) assisting the Federal agencies and Departments in appraising the effectiveness of existing and proposed facilities, programs, policies, and activities of the Federal Government, and those specific major projects designated by the President which do not require specific project authorization by Congress, which affect environmental quality;

(5) assisting in coordinating among the Federal departments and agencies those programs and activities which affect, protect and improve environmental quality; [and]

(6) assisting the Federal departments and agencies in the development and interrelationship of environmental quality criteria and standards established through the Federal government.

It is thus clear that Congress intended that CEQ be involved in the review and appraisal of specific agency programs, policies, and projects, and that it assist in resolving interagency problems.

The provisions of NEPA and the Environmental Quality Improvement Act make no specific reference to agency programs and activities for complying with NEPA; but it is clear that the activities of agencies which go to compliance with NEPA, including the preparation of environmental impact statements, are those which "affect, environmental quality." Thus, CEQ has specific statutory authority to review, appraise, and make recommendations on the NEPA-implementing programs and activities of Federal agencies, and, in addition, has statutory authority to coordinate the NEPA activities of the Federal agencies.

Subsequent to the passage of the two laws, the President, through Executive Order 11514 further extended and clarified the authority of CEQ vis a vis executive agencies by specifying that the CEQ shall, among other functions:

(f) Coordinate Federal programs related to environmental quality.

(h) Issue guidelines to Federal agencies for the preparation of detailed statements on proposals for legislation and other Federal actions affecting the environment, as required by section 102(2)(C) of the Act [NEPA].

(i) Issue such other instructions to agencies, and request such reports and other information from them, as may be required to carry out the Council's responsibilities under the Act [NEPA].

These authorities clearly establish that the Council on Environmental Quality has administrative responsibility for overall execution of the National Environmental Policy Act by Federal agencies. However, both the statutes and the Executive Order leave a major unanswered question: as a legal matter, what weight should be attached to CEQ's actions in the administration of NEPA? As with many NEPA issues, this determination has been left to the courts.

B. THE JUDICIAL VIEW OF CEQ AUTHORITY

1. *The Force of CEQ Guidelines*

Pursuant to these authorities, the Council on Environmental Quality has issued Guidelines to the Federal Agencies for Preparation of Environmental Impact Statements. (40 CFR Part 1500)² Agencies in turn issue their own regulations and procedures. The CEQ Guidelines have been in issue in scores of NEPA court decisions. These cases have involved deficiencies in the procedures of Federal agencies implementing NEPA, and the courts have generally relied

² Preliminary Guidelines were issued on April 30, 1970. Formal Guidelines were first published on April 23, 1971 (36 Fed. Reg. 7724). The present Guidelines were promulgated on August 1, 1973.

heavily on the CEQ interpretations of the law in reaching their decisions by looking to CEQ's position as the agency charged with overall responsibility for the EIS process. This section summarizes the principal decisions.

The Ninth Circuit has given the full force of law to the CEQ Guidelines, generally treating them as the applicable law when interpreting the requirements of NEPA and giving them the same force as properly promulgated regulations. See, *Robinswood Country Club v. Volpe*, — F. 2d — [6 ERC 1401] (9th Cir. 1974); *Jicarilla Tribe of Indians v. Morton* [3 ERC 1919] (D. Ariz. 1972), aff'd 471 F. 2d 1275 (9th Cir. 1973); *Keith v. Volpe*, 352 F. Supp. 1324 (C.D. Cal. 1972). Decisions have thus turned upon a reading of the Guidelines rather than NEPA itself. While the Ninth Circuit decisions do not fully explain this great deference to CEQ, there is reference to CEQ as the "watchdog organization created by NEPA." *Robinswood Country Club v. Volpe*, *supra*.)

While the Ninth Circuit stands alone in giving full regulatory force to the Guidelines, several other circuits have specifically recognized that CEQ is the agency charged with the administration of NEPA and therefore have given CEQ's Guidelines "great weight." Agency guidelines or specific agency actions have been overturned when not in compliance with CEQ Guidelines. For example, the Fourth Circuit in the case of *Ely v. Velde* (451 F.2d 1130, 1135-6, Note 14 [3 ERC 1280] (4th Cir. 1972)) took the position that the CEQ is the agency created to administer NEPA and gave the Guidelines overriding weight. Thus, while not giving the full force of law to the Guidelines, *Ely* is a strong statement in support of obligatory agency deference to the CEQ Guidelines. Similarly, the Sixth Circuit, in the case of *Environmental Defense Fund v. TVA*, 468 F.2d 1164 [4 ERC 1850] (1973), explicitly stated that CEQ is the agency "charged with implementing and administering the NEPA," and that the interpretation of NEPA by the CEQ (through the Guidelines) is entitled to "great weight."

Other circuits, while denying the Guidelines the force of law or great weight, have relied upon the Guidelines for guidance and authority to varying degrees. The District of Columbia Circuit, since the early days of NEPA implementation, has utilized the Guidelines as authoritative on issues of NEPA interpretation. (See *e.g.*, *Calvert Cliffs' Coordinating Committee v. AEC*, 499 F.2d 1109 (D.C. Cir. 1971)). The only explicit statement of the weight given the Guidelines in that circuit comes from the district court opinion of Skelly Wright in *SCRAP v. U.S.*, 346 F. Supp. 189 [4 ERC 1313] (1972). In this case, Judge Wright states that the Guidelines lack "force of law" but indicates, citing *Greene County, infra*, that the CEQ interpretation must be given serious consideration. The Guidelines in that case were determinative on the issue of the requirement for an EIS.

The position of the Second Circuit was established in *Greene County Planning Board v. FPC*, 455 F.2d 412 (2d Cir. 1972). The court stated that: "Although the Guidelines are merely advisory and the Council on Environmental Quality has no authority to prescribe regulations governing compliance with NEPA, we would not lightly suggest that the Council, entrusted with the responsibility of developing and recommending national policies 'to foster and promote the improvement of the environmental quality' * * * has misconstrued NEPA."

The "merely advisory" language has been quoted by itself as a limitation on CEQ's authority. Nonetheless this and other Second Circuit cases indicate that in that Circuit considerable deference will be given to the Council's interpretations of NEPA. (See, *e.g.*, *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972)).

The Fifth Circuit has taken the position that the CEQ Guidelines are merely advisory and that CEQ does not have the authority to prescribe regulations governing NEPA compliance. In the case of *Hiram Clarke Civic Club v. Lynn*, 476 F.2d 421 (5th Cir. 1973), the court states, "Unlike agency regulations, which have the force of law, their guidelines [the CEQ's] are merely advisory * * *" and further, "HUD noncompliance with CEQ guidelines raises no legal issue." This holding, however, is based on *Greene County*, and the court neglected to quote the remainder of the Second Circuit's language, that "we would not lightly suggest that * * * [CEQ] * * * has misconstrued NEPA." Interestingly, in spite of its protestations in *Hiram Clarke* the court decision was in most respects consistent with the CEQ Guidelines.

These seemingly unequivocal statements must be viewed in light of a number of Fifth Circuit cases which cite the Guidelines and other CEQ memoranda, giving them, at times, substantial weight. See, *e.g.*, *Sierra Club v. Callaway*, — F.2d — (5th Cir. 1974). Hence the Fifth Circuit, while strongly denying the force of law to the Guidelines, gives CEQ a degree of deference which is not adequately reflected in the oft-quoted language that states that the Guidelines are "merely advisory."

In summary, in viewing the relevant decisions, CEQ's authority in interpreting NEPA through its Guidelines has been given great deference, often paralleling or bordering on regulatory effect. Thus, as a general proposition, CEQ's views are entitled to great weight.

2. Effect of CEQ Comments

The courts similarly have given strong deference to CEQ comments on the need for or the adequacy of an environmental impact statement. Those opinions which, in dealing with the Guidelines, have found CEQ to be the agency charged with administration of NEPA and have given its interpretation great weight are also applicable when measuring CEQ's authority in other NEPA compliance matters.

Specifically, more than a dozen court of appeals and district court cases have relied on CEQ's comments in reaching a decision on the need for or the adequacy of an impact statement.³ In *National Resources Defense Council v. Tennessee Valley Authority*, 367 F. Supp. 128 (E. D. Tenn. 1973), *aff'd.* — F. 2d — (6th Cir. 1974), the court's decision pivoted on a letter from the General Counsel of CEQ which supported the concept that a program impact statement is preferable in some situations to individual project impact statements. CEQ's position on the inadequacy of an environmental impact statement, including notations regarding significant defects in the draft EIS, were relied on by a three-judge district court in *SCRAP v. U.S.*, 346 F. Supp. 189 (D. D.C. 1972). The Ninth Circuit has stated that CEQ's views on the adequacy of an environmental impact statement are entitled to "careful consideration."

Environmental Defense Fund v. Armstrong, 487 F. 2d 814 (1973). (See also, *Greene County Planning Board v. FPC*, *supra*, *Gage v. AEC*, 479 F. 2d 1214 (D.C. Cir. 1973), *Ford v. Train*, 4 ELR 20177 (W. D. Wis. 1974)).

In the case of *Warm Springs Dam Task Force v. Gribble*, 471 U.S. 1301 (1974), motion to vacate denied. — U.S. — (July 9, 1974), Justice Douglas (sitting as Circuit Justice), reflected the line of cases which have dealt with CEQ's authority as administrator of the impact statement process. In granting a stay pending appeal, he observed that "CEQ is the Executive Office charged with administration of the National Environmental Policy Act and Environmental Impact Statements"; and that agencies are to consult with and assist CEQ (citing subsections 102(2) (B) and (H) of NEPA). Justice Douglas relied primarily on the review and appraisal authority of section 204(3) of NEPA for the proposition that CEQ is "ultimately responsible for administration of NEPA" and that its determination on the adequacy of an impact statement is entitled to great weight. In short, in Douglas' view, CEQ is the final arbiter of the adequacy of an EIS, and that in court its view should predominate over that of the program agency.⁴

C. CONCLUSIONS

As a general proposition, CEQ has statutory administrative authority for review, oversight, coordination and recommendation to the President respecting Federal agency compliance with NEPA. This is affirmed by the courts, and although this authority does not confer full regulatory force that is absolutely binding on the agencies, its exercise is clearly entitled to great weight.

CEQ's Guidelines for environmental impact statements, issued pursuant to Executive Order 11514 do not have the full force of formal regulations issued pursuant to statute. However, they have been given such significant weight by the courts in cases interpreting NEPA and ruling on the adequacy of an agency's procedures that they typically are weighed more strongly than conflicting views of the other agencies involved in the subject projects.

³ The courts also have looked to other CEQ pronouncements to assist in resolving certain issues. See, e.g., *Greene County Planning Board v. Federal Power Commission*, 455 F. 2d 412 (2d Cir. 1972), *Environmental Defense Fund v. Corps of Engineers*, Gillham Dam), 470 F. 2d 289 (8th Cir. 1972), both looking to the CEQ Annual Report for supporting authority; and *Scientists Institute v. Atomic Energy Commission*, 481 F. 2d 1079 (D.C. Cir. 1973), *Indian Lookout Alliance v. Volpe*, 484 F. 2d 11 (8th Cir. 1973). *Iowa Citizens for Environmental Quality v. Volpe*, — F. 2d — (8th Cir. 1973), citing CEQ memoranda on particular subjects.

CEQ's recommendations to the President, reports, and role in determining lead agency responsibility were relied on in *Canal Authority of Florida v. Cullaway*, — F. Supp. — (M.D. Fla. 1974).

⁴ Also, in his dissenting opinion in *United States v. SCRAP*, 412 U.S. 669 (1973), he stated that CEQ is the "expert ombudsman" in the environmental area, and that the Council's appraisal was "a weighty one" when assessing agency compliance. (The majority of the court did not address CEQ's role or the weight of its opinion.)

Similarly, the courts have attached great weight to public comments by CEQ on environmental impact statements as they seek to determine the adequacy of particular statements. Because CEQ's authority in commenting on the need for a statement is derived from the same statutory authority, it is probable that such comments will receive the same judicial deference. This means that CEQ's views will be likely to prevail on such issues when courts are faced with conflicting views of CEQ and project agencies.

APPENDIX I
Guidelines

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PART 1500—PREPARATION OF ENVIRONMENTAL IMPACT STATEMENTS: GUIDELINES

Sec.

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Appendix I Summary to accompany draft and final statements.

Appendix II Areas of environmental impact and Federal agencies and Federal State agencies with jurisdiction by law or special expertise to comment thereon.

Appendix III Offices within Federal agencies and Federal-State agencies for information regarding the agencies' NEPA activities and for receiving other agencies' impact statements for which comments are requested.

Appendix IV State and local agency review of impact statements.

AUTHORITY: National Environmental Act (P.L. 91-190, 42 U.S.C. 4321 et seq.) and Executive Order 11514.

SOURCE: 38 FR 20550, Aug. 1, 1973, unless otherwise noted.

§ 1500.1 Purpose and authority.

(a) This directive provides guidelines to Federal departments, agencies, and establishments for preparing detailed environmental statements on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment as required by section 102(2)(C) of the National Environmental Policy Act (P.L. 91-190, 42 U.S.C. 4321 et seq.) (hereafter "the Act"). Underlying the preparation of such environmental statements is the mandate of both the Act and Executive Order 11514 (35 FR 4247) of March 1, 1970 (3 CFR, 1966-1970 Comp., p. 901, that all Federal agencies, to the fullest extent possible, direct their policies, plans and programs to protect and enhance environmental quality. Agencies are required to view their actions in a manner calculated to encourage productive and enjoyable harmony between man and his environment, to promote efforts preventing or eliminating damage to the environment and biosphere and stimulating the health and welfare of man, and to enrich the understanding of the ecological systems and natural resources important to the Nation. The objective of section 102(2)(C) of the Act and of these guidelines is to assist agencies in implementing these policies. This requires agencies to build into their decisionmaking process, beginning at the earliest possible point, an appropriate and careful consideration of the environmental aspects of proposed action in order that adverse environmental effects may be avoided or minimized and environmental quality previously lost may be restored. This directive also provides guidance to Federal, State, and local agencies and the public in commenting on statements prepared under these guidelines.

(b) Pursuant to section 204(3) of the Act the Council on Environmental Quality (hereafter "the Council") is assigned the duty and function of reviewing and appraising the programs and activities of the Federal Government, in the light of the Act's policy, for the purpose of determining the extent to which such programs and activities are contributing to the achievement of such policy, and to make recommendations to the President with respect thereto. Section 102(2)(B)

of the Act directs all Federal agencies to identify and develop methods and procedures, in consultation with the Council, to insure that unquantified environmental values be given appropriate consideration in decisionmaking along with economic and technical considerations; section 102(2)(C) of the Act directs that copies of all environmental impact statements be filed with the Council; and section 102(2)(H) directs all Federal agencies to assist the Council in the performance of its functions. These provisions have been supplemented in section 3(h) and (i) of Executive Order 11514 by directions that the Council issue guidelines to Federal agencies for preparation of environmental impact statements and such other instructions to agencies and requests for reports and information as may be required to carry out the Council's responsibilities under the Act.

§ 1500.2 Policy.

(a) As early as possible and in all cases prior to agency decision concerning recommendations or favorable reports on proposals for (1) legislation significantly affecting the quality of the human environment (see §§ 1500.5(i) and 1500.12) (hereafter "legislative actions") and (2) all other major Federal actions significantly affecting the quality of the human environment (hereafter "administrative actions"), Federal agencies will, in consultation with other appropriate Federal, State and local agencies and the public assess in detail the potential environmental impact.

(b) Initial assessments of the environmental impacts of proposed action should be undertaken concurrently with initial technical and economic studies and, where required, a draft environmental impact statement prepared and circulated for comment in time to accompany the proposal through the existing agency review processes for such action. In this process, Federal agencies shall: (1) Provide for circulation of draft environmental statements to other Federal, State, and local agencies and for their availability to the public in accordance with the provisions of these guidelines; (2) consider the comments of the agencies and the public; and (3) issue final environmental impact statements responsive to the comments received. The purpose of this assessment and consultation process is to provide agencies and other decisionmakers as well as members of the public with an understanding of the potential environmental effects of proposed actions, to avoid or minimize adverse effects wherever possible, and to restore or enhance environmental quality to the fullest extent practicable. In particular, agencies should use the environmental impact statement process to explore alternative actions that will avoid or minimize adverse impacts and to evaluate both the long- and short-range implications of proposed actions to man, his physical and social surroundings, and to nature. Agencies should consider the results of their environmental assessments along with their assessments of the net economic, technical and other benefits of proposed actions and use all practicable means, consistent with other essential considerations of national policy, to restore environmental quality as well as to avoid or minimize undesirable consequences for the environment.

§ 1500.3 Agency and OMB procedures.

(a) Pursuant to section 2(f) of Executive Order 11514, the heads of Federal agencies have been directed to proceed with measures required by section 102(2)(C) of the Act. Previous guidelines of the Council directed each agency to establish its own formal procedures for (1) identifying those agency actions requiring environmental statements, the appropriate time prior to decision for the consultations required by section 102(2)(C) and the agency review process for which environmental statements are to be available, (2) obtaining information required in their preparation, (3) designating the officials who are to be responsible for the statements, (4) consulting with and taking account of the comments of appropriate Federal, State and local agencies and the public, including obtaining the comment of the Administrator of the Environmental Protection Agency when required under section 309 of the Clean Air Act, as amended, and (5) meeting the requirements of section 2(b) of Executive Order 11514 for providing timely public information on Federal plans and programs with environmental impact. Each agency, including both departmental and subdepartmental components having such procedures, shall review its procedures and shall revise them, in consultation with the Council, as may be necessary in order to respond to requirements imposed by these revised guidelines as well as by such previous directives. After such consultation, proposed revisions of such agency procedures shall be published in the Federal Register no later than October 30, 1973. A minimum 45-day period for public comment shall be provided, followed by publication of final procedures no later than forty-five (45) days after the

conclusion of the comment period. Each agency shall submit seven (7) copies of all such procedures to the Council. Any future revision of such agency procedures shall similarly be proposed and adopted only after prior consultation with the Council and, in the case of substantial revision, opportunity for public comment. All revisions shall be published in the Federal Register.

(b) Each Federal agency should consult, with the assistance of the Council and the Office of Management and Budget if desired, with other appropriate Federal agencies in the development and revision of the above procedures so as to achieve consistency in dealing with similar activities and to assure effective coordination among agencies in their review of proposed activities. Where applicable, State and local review of such agency procedures should be conducted pursuant to procedures established by Office of Management and Budget Circular No. A-85.

(c) Existing mechanisms for obtaining the views of Federal, State, and local agencies on proposed Federal actions should be utilized to the maximum extent practicable in dealing with environmental matters. The Office of Management and Budget will issue instructions, as necessary, to take full advantage of such existing mechanisms.

§ 1500.4 Federal agencies included; effect of the Act on existing agency mandates.

(a) Section 102(2)(C) of the act applies to all agencies of the Federal Government. Section 102 of the act provides that "to the fullest extent possible: (1) The policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act," and section 105 of the act provides that "the policies and goals set forth in this act are supplementary to those set forth in existing authorizations of Federal agencies." This means that each agency shall interpret the provisions of the act as a supplement to its existing authority and as a mandate to view traditional policies and missions in the light of the act's national environmental objectives. In accordance with this purpose, agencies should continue to review their policies, procedures, and regulations and to revise them as necessary to ensure full compliance with the purposes and provisions of the act. The phrase "to the fullest extent possible" in section 102 is meant to make clear that each agency of the Federal Government shall comply with that section unless existing law applicable to the agency's operations expressly prohibits or makes compliance impossible.

§ 1500.5 Types of actions covered by the Act.

(a) "Actions" include but are not limited to:

(1) Recommendations or favorable reports relating to legislation including requests for appropriations. The requirement for following the section 102(2)(C) procedure as elaborated in these guidelines applies to both (i) agency recommendations on their own proposals for legislation (see § 1500.12); and (ii) agency reports on legislation initiated elsewhere. In the latter case only the agency which has primary responsibility for the subject matter involved will prepare an environmental statement.

(2) New and continuing projects and program activities: directly undertaken by Federal agencies; or supported in whole or in part through Federal contracts, grants, subsidies, loans, or other forms of funding assistance (except where such assistance is solely in the form of general revenue sharing funds, distributed under the State and Local Fiscal Assistance Act of 1972, 31 U.S.C. 1221 et. seq. with no Federal agency control over the subsequent use of such funds); or involving a Federal lease, permit, license certificate or other entitlement for use.

(3) The making, modification, or establishment of regulations, rules, procedures, and policy.

§ 1500.6 Identifying major actions significantly affecting the environment.

(a) The statutory clause "major Federal actions significantly affecting the quality of the human environment" is to be construed by agencies with a view to the overall, cumulative impact of the action proposed, related Federal actions and projects in the area, and further actions contemplated. Such actions may be localized in their impact, but if there is potential that the environment may be significantly affected, the statement is to be prepared. Proposed major actions, the environmental impact of which is likely to be highly controversial, should be covered in all cases. In considering what constitutes major action signifi-

cantly affecting the environment, agencies should bear in mind that the effect of many Federal decisions about a project or complex of projects can be individually limited but cumulatively considerable. This can occur when one or more agencies over a period of years puts into a project individually minor but collectively major resources, when one decision involving a limited amount of money is a precedent for action in much larger cases or represents a decision in principle about a future major course of action, or when several Government agencies individually make decisions about partial aspects of a major action. In all such cases, an environmental statement should be prepared if it is reasonable to anticipate a cumulatively significant impact on the environment from Federal action. The Council, on the basis of a written assessment of the impacts involved, is available to assist agencies in determining whether specific actions require impact statements.

(b) Section 101(b) of the act indicates the broad range of aspects of the environment to be surveyed in any assessment of significant effect. The act also indicates that adverse significant effects include those that degrade the quality of the environment, curtail the range of beneficial uses of the environment, and serve short-term, to the disadvantage of long-term environmental goals. Significant effects can also include actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial. Significant effects also include secondary effects, as described more fully, for example, in § 1500.8(a) (iii) (B). The significance of a proposed action may also vary with the setting, with the result that an action that would have little impact in an urban area may be significant in a rural setting or vice versa. While a precise definition of environmental "significance," valid in all contexts, is not possible, effects to be considered in assessing significance include, but are not limited to, those outlined in Appendix II of these guidelines.

(c) Each of the provisions of the act, except section 102(2) (C), applies to all Federal agency actions. Section 102(2) (C) requires the preparation of a detailed environmental impact statement in the case of "major Federal actions significantly affecting the quality of the human environment." The identification of major actions significantly affecting the environment is the responsibility of each Federal agency, to be carried out against the background of its own particular operations. The action must be a (1) "major" action, (2) which is a "Federal action," (3) which has a "significant" effect, and (4) which involves the "quality of the human environment." The words "major" and "significantly" are intended to imply thresholds of importance and impact that must be met before a statement is required. The action causing the impact must also be one where there is sufficient Federal control and responsibility to constitute "Federal action" in contrast to cases where such Federal control and responsibility are not present as, for example, when Federal funds are distributed in the form of general revenue sharing to be used by State and local governments (see § 1500.5(ii)). Finally, the action must be one that significantly affects the quality of the human environment either by directly affecting human beings or by indirectly affecting human beings through adverse effects on the environment. Each agency should review the typical classes of actions that it undertakes and, in consultation with the Council, should develop specific criteria and methods for identifying those actions likely to require environmental statements and those actions likely not to require environmental statements. Normally this will involve:

(i) Making an initial assessment of the environmental impacts typically associated with principal types of agency action.

(ii) Identifying on the basis of this assessment, types of actions which normally do, and types of actions which normally do not, require statements.

(iii) With respect to remaining actions that may require statements depending on the circumstances, and those actions determined under the preceding paragraph (C) (4) (ii) of this section as likely to require statements, identifying: (a) what basic information needs to be gathered; (b) how and when such information is to be assembled and analyzed; and (c) on what bases environmental assessments and decisions to prepare impact statements will be made. Agencies may either include this substantive guidance in the procedures issued pursuant to § 1500.3(a) of these guidelines, or issue such guidance as supplemental instructions to aid relevant agency personnel in implementing the impact statement process. Pursuant to § 1500.14 of these guidelines, agencies shall report to the Council by June 30, 1974, on the progress made in developing such substantive guidance.

(d)(1) Agencies should give careful attention to identifying and defining the purpose and scope of the action which would most appropriately serve as

the subject of the statement. In many cases, broad program statements will be required in order to assess the environmental effects of a number of individual actions on a given geographical area (e.g., coal leases), or environmental impacts that are generic or common to a series of agency actions (e.g., maintenance or waste handling practices), or the overall impact of a large-scale program or chain of contemplated projects (e.g., major lengths of highway as opposed to small segments). Subsequent statements on major individual actions will be necessary where such actions have significant environmental impacts not adequately evaluated in the program statement.

(2) Agencies engaging in major technology research and development programs should develop procedures for periodic evaluation to determine when a program statement is required for such programs. Factors to be considered in making this determination include the magnitude of Federal investment in the program, the likelihood of widespread application of the technology, the degree of environmental impact which would occur if the technology were widely applied, and the extent to which continued investment in the new technology is likely to restrict future alternatives. Statements must be written late enough in the development process to contain meaningful information, but early enough so that this information can practically serve as an input in the decision-making process. Where it is anticipated that a statement may ultimately be required but that its preparation is still premature, the agency should prepare an evaluation briefly setting forth the reasons for its determination that a statement is not yet necessary. This evaluation should be periodically updated, particularly when significant new information becomes available concerning the potential environmental impact of the program. In any case, a statement must be prepared before research activities have reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives. Statements on technology research and development programs should include an analysis not only of alternative forms of the same technology that might reduce any adverse environmental impacts but also of alternative technologies that would serve the same function as the technology under consideration. Efforts should be made to involve other Federal agencies and interested groups with relevant expertise in the preparation of such statements because the impacts and alternatives to be considered are likely to be less well defined than in other types of statements.

(e) In accordance with the policy of the Act and Executive Order 11514 agencies have a responsibility to develop procedures to insure the fullest practicable provision of timely public information and understanding of Federal plans and programs with environmental impact in order to obtain the views of interested parties. In furtherance of this policy, agency procedures should include an appropriate early notice system for informing the public of the decision to prepare a draft environmental statement on proposed administrative actions (and for soliciting comments that may be helpful in preparing the statement) as soon as is practicable after the decision to prepare the statement is made. In this connection, agencies should: (1) maintain a list of administrative actions for which environmental statements are being prepared; (2) revise the list at regular intervals specified in the agency's procedures developed pursuant to § 1500.3(a) of these guidelines (but not less than quarterly) and transmit each such revision to the Council; and (3) make the list available for public inspection on request. The Council will periodically publish such lists in the Federal Register. If an agency decides that an environmental statement is not necessary for a proposed action (i) which the agency has identified pursuant to § 1500.6(c) (4) (ii) as normally requiring preparation of a statement, (ii) which is similar to actions for which the agency has prepared a significant number of statements, (iii) which the agency has previously announced would be the subject of a statement, or (iv) for which the agency has made a negative determination in response to a request from the Council pursuant to § 1500.11(f), the agency shall prepare a publicly available record briefly setting forth the agency's decision and the reasons for that determination. Lists of such negative determinations, and any evaluations made pursuant to § 1500.6 which conclude that preparation of a statement is not yet timely, shall be prepared and made available in the same manner as provided in this subsection for lists of statements under preparation.

§ 1500.7 Preparing draft environmental statements; public hearings.

(a) Each environmental impact statement shall be prepared and circulated in draft form for comment in accordance with the provisions of these guidelines. The draft statement must fulfill and satisfy to the fullest extent possible at the time

the draft is prepared the requirements established for final statements by section 102(2) (C). (Where an agency has an established practice of declining to favor an alternative until public comments on a proposed action have been received, the draft environmental statement may indicate that two or more alternatives are under consideration.) Comments received shall be carefully evaluated and considered in the decision process. A final statement with substantive comments attached shall then be issued and circulated in accordance with applicable provisions of §§ 1500.10, 1500.11, or 1500.12. It is important that draft environmental statements be prepared and circulated for comment and furnished to the Council as early as possible in the agency review process in order to permit agency decisionmakers and outside reviewers to give meaningful consideration to the environmental issues involved. In particular, agencies should keep in mind that such statements are to serve as the means of assessing the environmental impact of proposed agency actions, rather than as a justification for decisions already made. This means that draft statements on administrative actions should be prepared and circulated for comment prior to the first significant point of decision in the agency review process. For major categories of agency action, this point should be identified in the procedures issued pursuant to § 1500.3(a). For major categories of projects involving an applicant and identified pursuant to § 1500.6 (c) (ii) as normally requiring the preparation of a statement, agencies should include in their procedures provisions limiting actions which an applicant is permitted to take prior to completion and review of the final statement with respect to his application.

(b) Where more than one agency (1) directly sponsors an action, or is directly involved in an action through funding, licenses, or permits, or (2) is involved in a group of actions directly related to each other because of their functional interdependence and geographical proximity, consideration should be given to preparing one statement for all the Federal actions involved (see § 1500.6(d) (1)). Agencies in such cases should consider the possibility of joint preparation of a statement by all agencies concerned, or designation of a single "lead agency" to assume supervisory responsibility for preparation of the statement. Where a lead agency prepares the statement, the other agencies involved should provide assistance with respect to their areas of jurisdiction and expertise. In either case, the statement should contain an environmental assessment of the full range of Federal actions involved, should reflect the views of all participating agencies, and should be prepared before major or irreversible actions have been taken by any of the participating agencies. Factors relevant in determining an appropriate lead agency include the time sequence in which the agencies become involved, the magnitude of their respective involvement, and their relative expertise with respect to the project's environmental effects. As necessary, the Council will assist in resolving questions of responsibility for statement preparation in the case of multi-agency actions. Federal Regional Councils, agencies and the public are encouraged to bring to the attention of the Council and other relevant agencies appropriate situations where a geographic or regionally focused statement would be desirable because of the cumulative environmental effects likely to result from multi-agency actions in the area.

(c) Where an agency relies on an applicant to submit initial environmental information, the agency should assist the applicant by outlining the types of information required. In all cases, the agency should make its own evaluation of the environmental issues and take responsibility for the scope and content of draft and final environmental statements.

(d) Agency procedures developed pursuant to § 1500.3(a) of these guidelines should indicate as explicitly as possible those types of agency decisions or actions which utilize hearings as part of the normal agency review process, either as a result of statutory requirement or agency practice. To the fullest extent possible, all such hearings shall include consideration of the environmental aspects of the proposed action. Agency procedures shall also specifically include provision for public hearings on major actions with environmental impact, whenever appropriate, and for providing the public with relevant information, including information on alternative courses of action. In deciding whether a public hearing is appropriate, an agency should consider: (1) The magnitude of the proposal in terms of economic costs, the geographic area involved, and the uniqueness or size of commitment of the resources involved; (2) the degree of interest in the proposal, as evidenced by requests from the public and from Federal, State and local authorities that a hearing be held; (3) the complexity of the issue and the likelihood that information will be presented at the hearing which will be of assist-

ance to the agency in fulfilling its responsibilities under the Act; and (4) the extent to which public involvement already has been achieved through other means, such as earlier public hearings, meetings with citizen representatives, and/or written comments on the proposed action. Agencies should make any draft environmental statements to be issued available to the public at least fifteen (15) days prior to the time of such hearings.

§ 1500.8 Content of environmental statements.

(a) The statement points are to be covered:

(1) A description of the proposed action, a statement of its purposes, and a description of the environment affected, including information, summary technical data, and maps and diagrams where relevant, adequate to permit an assessment of potential environmental impact by commenting agencies and the public. Highly technical and specialized analyses and data should be avoided in the body of the draft impact statement. Such materials should be attached as appendices or footnoted with adequate bibliographic references. The statement should also succinctly describe the environment of the area affected as it exists prior to a proposed action, including other Federal activities in the area affected by the proposed action which are related to the proposed action. The interrelationships and cumulative environmental impacts of the proposed action and other related Federal projects shall be presented in the statement. The amount of detail provided in such descriptions should be commensurate with the extent and expected impact of the action, and with the amount of information required at the particular level of decisionmaking (planning, feasibility, design, etc.). In order to ensure accurate descriptions and environmental assessments, site visits should be made where feasible. Agencies should also take care to identify, as appropriate, population and growth characteristics of the affected area and any population and growth assumptions used to justify the project or program or to determine secondary population and growth impacts resulting from the proposed action and its alternatives (see paragraph (a)(1)(3)(ii), of this section). In discussing these population aspects, agencies should give consideration to using the rates of growth in the region of the project contained in the projection compiled for the Water Resources Council by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research Service of the Department of Agriculture (the "OBERS" projection). In any event it is essential that the sources of data used to identify, quantify or evaluate any and all environmental consequences be expressly noted.

(2) The relationship of the proposed action to land use plans, policies, and controls for the affected area. This requires a discussion of how the proposed action may conform or conflict with the objectives and specific terms of approved or proposed Federal, State, and local land use plans, policies, and controls, if any, for the area affected including those developed in response to the Clean Air Act or the Federal Water Pollution Control Act Amendments of 1972. Where a conflict or inconsistency exists, the statement should describe the extent to which the agency has reconciled its proposed action with the plan, policy or control, and the reasons why the agency has decided to proceed notwithstanding the absence of full reconciliation.

(3) The probable impact of the proposed action on the environment.

(i) This requires agencies to assess the positive and negative effects of the proposed action as it affects both the national and international environment. The attention given to different environmental factors will vary according to the nature, scale, and location of proposed actions. Among factors to consider should be the potential effect of the action on such aspects of the environment as those listed in Appendix II of these guidelines. Primary attention should be given in the statement to discussing those factors most evidently impacted by the proposed action.

(ii) Secondary or indirect, as well as primary or direct, consequences for the environment should be included in the analysis. Many major Federal actions, in particular those that involve the construction or licensing of infrastructure investments (e.g., highways, airports, sewer systems, water resource projects, etc.), stimulate or induce secondary effects in the form of associated investments and changed patterns of social and economic activities. Such secondary effects, through their impacts on existing community facilities and activities, through inducing new facilities and activities, or through changes in natural conditions, may often be even more substantial than the primary effects of the original action itself. For example, the effects of the proposed action on population and

growth may be among the more significant secondary effects. Such population and growth impacts should be estimated if expected to be significant (using data identified as indicated in § 1500.8(a)(1)) and an assessment made of the effect of any possible change in population patterns or growth upon the resource base, including land use, water, and public services, of the area in question.

(4) Alternatives to the proposed action, including, where relevant, those not within the existing authority of the responsible agency. (Section 102(2)(D) of the Act requires the responsible agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources"). A rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid some or all of the adverse environmental effects, is essential. Sufficient analysis of such alternatives and their environmental benefits, costs and risks should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might enhance environmental quality or have less detrimental effects. Examples of such alternatives include: the alternative of taking no action or of postponing action pending further study; alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts (e.g., nonstructural alternatives to flood control programs, or mass transit alternatives to highway construction); alternatives related to different designs or details of the proposed action which would present different environmental impacts (e.g., cooling ponds vs. cooling towers for a power plant or alternatives that will significantly conserve energy); alternative measures to provide for compensation of fish and wildlife losses, including the acquisition of land, waters, and interests therein. In each case, the analysis should be sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs and risks of the proposed action and each reasonable alternative. Where an existing impact statement already contains such an analysis, its treatment of alternatives may be incorporated provided that such treatment is current and relevant to the precise purpose of the proposed action.

(5) Any probable adverse environmental effects which cannot be avoided (such as water or air pollution, undesirable land use patterns, damage to life systems, urban congestion, threats to health or other consequences adverse to the environmental goals set out in section 101(b) of the Act). This should be a brief section summarizing in one place those effects discussed in paragraph (a)(3) of this section that are adverse and unavoidable under the proposed action. Included for purposes of contrast should be a clear statement of how other avoidable adverse effects discussed in paragraph (a)(2) of this section will be mitigated.

(6) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. This section should contain a brief discussion of the extent to which the proposed action involves tradeoffs between short-term environmental gains at the expense of long-term losses, or vice versa, and a discussion of the extent to which the proposed action forecloses future options. In this context short-term and long-term do not refer to any fixed time periods, but should be viewed in terms of the environmentally significant consequences of the proposed action.

(7) Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented. This requires the agency to identify from its survey of unavoidable impacts in paragraph (a)(5) of this section the extent to which the action irreversibly curtails the range of potential uses of the environment. Agencies should avoid construing the term "resources" to mean only the labor and materials devoted to an action. "Resources" also means the natural and cultural resources committed to loss or destruction by the action.

(8) An indication of what other interests and considerations of Federal policy are thought to offset the adverse environmental effects of the proposed action identified pursuant to paragraphs (a)(3) and (5) of this section. The statement should also indicate the extent to which these stated countervailing benefits could be realized by following reasonable alternatives to the proposed action (as identified in paragraph (a)(4) of this section) that would avoid some or all of the adverse environmental effects. In this connection, agencies that prepare cost-benefit analyses of proposed actions should attach such analyses, or summaries thereof, to the environmental impact statement, and should clearly indicate the extent to which environmental costs have not been reflected in such analyses.

(b) In developing the above points agencies should make every effort to convey the required information succinctly in a form easily understood, both by members of the public and by public decisionmakers, giving attention to the substance of the information conveyed rather than to the particular form, or length, or detail of the statement. Each of the above points, for example, need not always occupy a distinct section of the statement if it is otherwise adequately covered in discussing the impact of the proposed action and its alternatives—which items should normally be the focus of the statement. Draft statements should indicate at appropriate points in the text any underlying studies, reports, and other information obtained and considered by the agency in preparing the statement including any cost-benefit analyses prepared by the agency, and reports of consulting agencies under the Fish and Wildlife Coordination Act, 16 U.S.C. 661 et seq., and the National Historic Preservation Act of 1966, 16 U.S.C. 470 et seq., where such consultation has taken place. In the case of documents not likely to be easily accessible (such as internal studies or reports), the agency should indicate how such information may be obtained. If such information is attached to the statement, care should be taken to ensure that the statement remains an essentially self-contained instrument capable of being understood by the reader without the need for undue cross reference.

(c) Each environmental statement should be prepared in accordance with the precept in section 102(2) (A) of the act that all agencies of the Federal Government “utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and decisionmaking which may have an impact on man’s environment.” Agencies should attempt to have relevant disciplines represented on their own staffs; where this is not feasible they should make appropriate use of relevant Federal, State, and local agencies or the professional services of universities and outside consultants. The interdisciplinary approach should not be limited to the preparation of the environmental impact statement, but should also be used in the early planning stages of the proposed action. Early application of such an approach should help assure a systematic evaluation of reasonable alternative courses of action and their potential social, economic, and environmental consequences.

(d) Appendix I prescribes the form of the summary sheet which should accompany each draft and final environmental statement.

§ 1500.9 Review of draft environmental statements by Federal, Federal-State, State, and local agencies and by the public.

(a) *Federal agency review.* (1) *In general.* A Federal agency considering an action requiring an environmental statement should consult with, and (on the basis of a draft environmental statement for which the agency takes responsibility) obtain the comment on the environmental impact of the action of Federal and Federal-State agencies with jurisdiction by law or special expertise with respect to any environmental impact involved. These Federal and Federal-State agencies and their relevant areas of expertise include those identified in Appendices II and III to these guidelines. It is recommended that the listed departments and agencies establish contact points, which may be regional offices, for providing comments on the environmental statements. The requirement in section 102(2) (C) to obtain comment from Federal agencies having jurisdiction or special expertise is in addition to any specific statutory obligation of any Federal agency to coordinate or consult with any other Federal or State agency. Agencies should, for example, be alert to consultation requirements of the Fish and Wildlife Coordination Act, 16 U.S.C. 661 et seq., and the National Historic Preservation Act of 1966, 16 U.S.C. 470 et seq. To the extent possible, statements or findings concerning environmental impact required by other statutes, such as section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 1653(f), or section 106 of the National Historic Preservation Act of 1966, should be combined with compliance with the environmental impact statement requirements of section 102(2) (C) of the Act to yield a single document which meets all applicable requirements. The Advisory Council on Historic Preservation, the Department of Transportation, and the Department of the Interior, in consultation with the Council, will issue any necessary supplementing instructions for furnishing information or findings not forthcoming under the environmental impact statement process.

(b) *EPA review.* Section 309 of the Clean Air Act, as amended (42 U.S.C. § 1857h-7), provides that the Administrator of the Environmental Protection Agency shall comment in writing on the environmental impact of any matter re-

lating to his duties and responsibilities, and shall refer to the Council any matter that the Administrator determines is unsatisfactory from the standpoint of public health or welfare or environmental quality. Accordingly, wherever an agency action related to air or water quality, noise abatement and control, pesticide regulation, solid waste disposal, generally applicable environmental radiation criteria and standards, or other provision of the authority of the Administrator is involved, Federal agencies are required to submit such proposed actions and their environmental impact statements, if such have been prepared, to the Administrator for review and comment in writing. In all cases where EPA determines that proposed agency action is environmentally unsatisfactory, or where EPA determines that an environmental statement is so inadequate that such a determination cannot be made, EPA shall publish its determination and notify the Council as soon as practicable. The Administrator's comments shall constitute his comments for the purposes of both section 309 of the Clean Air Act and section 102(2)(C) of the National Environmental Policy Act.

(c) *State and local review.* Office of Management and Budget Circular No. A-95 (Revised) through its system of State and areawide clearinghouses provides a means for securing the views of State and local environmental agencies, which can assist in the preparation and review of environmental impact statements. Current instructions for obtaining the views of such agencies are contained in the joint OMB-CEQ memorandum attached to these guidelines as Appendix IV. A current listing of clearinghouses is issued periodically by the Office of Management and Budget.

(d) *Public review.* The procedures established by these guidelines are designed to encourage public participation in the impact statement process at the earliest possible time. Agency procedures should make provision for facilitating the comment of public and private organizations and individuals by announcing the availability of draft environmental statements and by making copies available to organizations and individuals that request an opportunity to comment. Agencies should devise methods for publicizing the existence of draft statements, for example, by publication of notices in local newspapers or by maintaining a list of groups, including relevant conservation commissions, known to be interested in the agency's activities and directly notifying such groups of the existence of a draft statement, or sending them a copy, as soon as it has been prepared. A copy of the draft statement should in all cases be sent to any applicant whose project is the subject of the statement. Materials to be made available to the public shall be provided without charge to the extent practicable, or at a fee which is not more than the actual cost of reproducing copies required to be sent to other Federal agencies, including the Council.

(e) *Responsibilities of commenting entities.* (1) Agencies and members of the public submitting comments on proposed actions on the basis of draft environmental statements should endeavor to make their comments as specific, substantive, and factual as possible without undue attention to matters of form in the impact statement. Although the comments need not conform to any particular format, it would assist agencies reviewing comments if the comments were organized in a manner consistent with the structure of the draft statement. Emphasis should be placed on the assessment of the environmental impacts of the proposed action, and the acceptability of those impacts on the quality of the environment, particularly as contrasted with the impacts of reasonable alternatives to the action. Commenting entities may recommend modifications to the proposed action and/or new alternatives that will enhance environmental quality and avoid or minimize adverse environmental impacts.

(2) Commenting agencies should indicate whether any of their projects not identified in the draft statement are sufficiently advanced in planning and related environmentally to the proposed action so that a discussion of the environmental interrelationships should be included in the final statement (see § 1500.8(a)(1)). The Council is available to assist agencies in making such determinations.

(3) Agencies and members of the public should indicate in their comments the nature of any monitoring of the environmental effects of the proposed project that appears particularly appropriate. Such monitoring may be necessary during the construction, startup, or operation phases of the project. Agencies with special expertise with respect to the environmental impacts involved are encouraged to assist the sponsoring agency in the establishment and operation of appropriate environmental monitoring.

(f) *Time limit for comments.* Agencies seeking comment shall establish time limits of not less than forty-five (45) days for reply, after which it may be presumed, unless the agency or party consulted requests a specified extension

of time, that the agency or party consulted has no comment to make. Agencies seeking comment should endeavor to comply with requests for extensions of time of up to fifteen (15) days. In determining an appropriate period for comment, agencies should consider the magnitude and complexity of the statement and the extent of citizen interest in the proposed action.

§ 1500.10 Preparation and circulation of final environmental statements.

(a) Agencies should make every effort to discover and discuss all major points of view on the environmental effects of the proposed action and its alternatives in the draft statement itself. However, where opposing professional views and responsible opinion have been overlooked in the draft statement and are brought to the agency's attention through the commenting process, the agency should review the environmental effects of the action in light of those views and should make a meaningful reference in the final statement to the existence of any responsible opposing view not adequately discussed in the draft statement, indicating the agency's response to the issues raised. All substantive comments received on the draft (or summaries thereof where response has been exceptionally voluminous) should be attached to the final statement, whether or not each such comment is thought to merit individual discussion by the agency in the text of the statement.

(b) Copies of final statements, with comments attached, shall be sent to all Federal, State, and local agencies and private organizations that made substantive comments on the draft statement and to individuals who requested a copy of the final statement, as well as any applicant whose project is the subject of the statement. Copies of final statements shall in all cases be sent to the Environmental Protection Agency to assist it in carrying out its responsibilities under section 309 of the Clean Air Act. Where the number of comments on a draft statement is such that distribution of the final statement to all commenting entities appears impracticable, the agency shall consult with the Council concerning alternative arrangements for distribution of the statement.

§ 1500.11 Transmittal of statements to the Council; minimum periods for review; requests by the Council.

(a) As soon as they have been prepared, ten (10) copies of draft environmental statements, five (5) copies of all comments made thereon (to be forwarded to the Council by the entity making comment at the time comment is forwarded to the responsible agency), and ten (10) copies of the final text of environmental statements (together with the substance of all comments received by the responsible agency from Federal, State, and local agencies and from private organizations and individuals) shall be supplied to the Council. This will serve to meet the statutory requirement to make environmental statements available to the President. At the same time that copies of draft and final statements are sent to the Council, copies should also be sent to relevant commenting entities as set forth in §§ 1500.9 and 1500.10 (b) of these guidelines.

(b) To the maximum extent practicable no administrative action subject to section 102(2) (C) is to be taken sooner than ninety (90) days after a draft environmental statement has been circulated for comment, furnished to the Council and, except where advance public disclosure will result in significantly increased costs of procurement to the Government, made available to the public pursuant to these guidelines; neither should such administrative action be taken sooner than thirty (30) days after the final text of an environmental statement (together with comments) has been made available to the Council, commenting agencies, and the public. In all cases, agencies should allot a sufficient review period for the final statement so as to comply with the statutory requirement that the "statement and the comments and views of appropriate Federal, State, and local agencies * * * accompany the proposal through the existing agency review processes." If the final text of an environmental statement is filed within ninety (90) days after a draft statement has been circulated for comment, furnished to the Council and made public pursuant to this section of these guidelines, the minimum thirty (30) day period and the ninety (90) day period may run concurrently to the extent that they overlap. An agency may at any time supplement or amend a draft or final environmental statement, particularly when substantial changes are made in the proposed action, or significant new information becomes available concerning its environmental aspects. In such cases the agency should consult with the Council with respect to the possible need for or desirability of recirculation of the statement for the appropriate period.

(c) The Council will publish weekly in the FEDERAL REGISTER lists of environmental statements received during the preceding week that are available for public comment. The date of publication of such lists shall be the date from which the minimum periods for review and advance availability of statements shall be calculated.

(d) The Council's publication of notice of the availability of statements is in addition to the agency's responsibility, as described in § 1500.9(d) of these guidelines, to insure the fullest practicable provision of timely public information concerning the existence and availability of environmental statements. The agency responsible for the environmental statements is also responsible for making the statement, the comments received, and any underlying documents available to the public pursuant to the provisions of the Freedom of Information Act (5 U.S.C., 552), without regard to the exclusion of intra- or interagency memoranda when such memoranda transmit comments of Federal agencies on the environmental impact of the proposed action pursuant to § 1500.9 of these guidelines. Agency procedures prepared pursuant to § 1500.3(a) of these guidelines shall implement these public information requirements and shall include arrangements for availability of environmental statements and comments at the head and appropriate regional offices of the responsible agency and at appropriate State and areawide clearinghouses unless the Governor of the State involved designates to the Council some other point for receipt of this information. Notice of such designation of an alternate point for receipt of this information will be included in the Office of Management and Budget listing of clearinghouses referred to in § 1500.9(c).

(e) Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these guidelines concerning minimum periods for agency review and advance availability of environmental statements, the Federal agency proposing to take the action should consult with the Council about alternative arrangements. Similarly where there are overriding considerations of expense to the Government or impaired program effectiveness, the responsible agency should consult with the Council concerning appropriate modifications of the minimum periods.

(f) In order to assist the Council in fulfilling its responsibilities under the Act and under Executive Order 11514, all agencies shall (as required by section 102(2)(H) of the Act and section 3(i) of Executive Order 11514) be responsive to requests by the Council for reports and other information dealing with issues arising in connection with the implementation of the Act. In particular, agencies shall be responsive to a request by the Council for the preparation and circulation of an environmental statement, unless the agency determines that such a statement is not required, in which case the agency shall prepare an environmental assessment and a publicly available record briefly setting forth the reasons for its determination. In no case, however, shall the Council's silence or failure to comment or request preparation, modification, or recirculation of an environmental statement or to take other action with respect to an environmental statement be construed as bearing in any way on the question of the legal requirement for or the adequacy of such statement under the Act.

§ 1500.12 Legislative actions.

(a) The Council and the Office of Management and Budget will cooperate in giving guidance as needed to assist agencies in identifying legislative items believed to have environmental significance. Agencies should prepare impact statements prior to submission of their legislative proposals to the Office of Management and Budget. In this regard, agencies should identify types of repetitive legislation requiring environmental impact statements (such as certain types of bills affecting transportation policy or annual construction authorizations).

(b) With respect to recommendations or reports on proposals for legislation to which section 102(2)(C) applies, the final text of the environmental statement and comments thereon should be available to the Congress and to the public for consideration in connection with the proposed legislation or report. In cases where the scheduling of congressional hearings on recommendations or reports on proposals for legislation which the Federal agency has forwarded to the Congress does not allow adequate time for the completion of a final text of an environmental statement (together with comments), a draft environmental statement may be furnished to the Congress and made available to the public pending transmittal of the comments as received and the final text.

§ 1500.13 Application of section 102(2)(C) procedure to existing projects and programs.

Agencies have an obligation to reassess ongoing projects and programs in order to avoid or minimize adverse environmental effects. The section 102(2)(C) procedure shall be applied to further major Federal actions having a significant effect on the environment even though they arise from projects or programs initiated prior to enactment of the act on January 1, 1970. While the status of the work and degree of completion may be considered in determining whether to proceed with the project, it is essential that the environmental impacts of proceeding are reassessed pursuant to the act's policies and procedures and, if the project or program is continued, that further incremental major actions be shaped so as to enhance and restore environmental quality as well as to avoid or minimize adverse environmental consequences. It is also important in further action that account be taken of environmental consequences not fully evaluated at the outset of the project or program.

§ 1500.14 Supplementary guidelines; evaluation of procedures.

(a) The Council after examining environmental statements and agency procedures with respect to such statements will issue such supplements to these guidelines as are necessary.

(b) Agencies will continue to assess their experience in the implementation of the section 102(2)(C) provisions of the act and in conforming with these guidelines and report thereon to the Council by June 30, 1974. Such reports should include an identification of the problem areas and suggestions for revision or clarification of these guidelines to achieve effective coordination of views on environmental aspects (and alternatives, where appropriate) or proposed actions without imposing unproductive administrative procedures. Such reports shall also indicate what progress the agency has made in developing substantive criteria and guidance for making environmental assessments as required by § 1500.6(c) of this directive and by section 102(2)(B) of the act.

APPENDIX I—SUMMARY TO ACCOMPANY DRAFT AND FINAL STATEMENTS

(Check one () Draft, () Final Environmental Statement.

Name or responsible Federal agency (with name of operating division where appropriate). Name, address, and telephone number of individual at the agency who can be contacted for additional information about the proposed action or the statement.

1. Name of action (Check one) () Administrative Action () Legislative Action.
2. Brief description of action and its purpose. Indicate what States (and counties) particularly affected, and what other proposed Federal actions in the area, if any, are discussed in the statement.
3. Summary of environmental impacts and adverse environmental effects.
4. Summary of major alternatives considered.
5. (For draft statements) List all Federal, State, and local agencies and other parties from which comments have been requested. (For final statements) List all Federal, State, and local agencies and other parties from which written comments have been received.
6. Date draft statement (and final environmental statement, if one has been issued) made available to the Council and the public.

APPENDIX II—AREAS OF ENVIRONMENTAL IMPACT AND FEDERAL AGENCIES AND FEDERAL STATE AGENCIES¹ WITH JURISDICTION BY LAW OR SPECIAL EXPERTISE TO COMMENT THEREON²

AIR

Air Quality

Department of Agriculture—

Forest Service (effects on vegetation)

Atomic Energy Commission (radioactive substances)

Department of Health, Education, and Welfare

Environmental Protection Agency

¹ River Basin Commissions (Delaware, Great Lakes, Missouri, New England, Ohio, Pacific Northwest, Souris-Red-Rain, Susquehanna, Upper Mississippi) and similar Federal-State agencies should be consulted on actions affecting the environment of their specific geographic jurisdictions.

² In all cases where a proposed action will have significant international environmental effects, the Department of State should be consulted, and should be sent a copy of any draft and final impact statement which covers such action.

Department of the Interior—

- Bureau of Mines (fossil and gaseous fuel combustion)
- Bureau of Sport Fisheries and Wildlife (effect on wildlife)
- Bureau of Outdoor Recreation (effects on recreation)
- Bureau of Land Management (public lands)
- Bureau of Indian Affairs (Indian lands)

National Aeronautics and Space Administration (remote sensing, aircraft emissions)

Department of Transportation—

- Assistant Secretary for Systems Development and Technology (auto emissions)
- Coast Guard (vessel emissions)
- Federal Aviation Administration (aircraft emissions)

Weather Modification

Department of Agriculture—

- Forest Service

Department of Commerce—

- National Oceanic and Atmospheric Administration

Department of Defense—

- Department of the Air Force

Department of the Interior

- Bureau of Reclamation

WATER RESOURCES COUNCIL

WATER

Water Quality

Department of Agriculture—

- Soil Conservation Service
- Forest Service

Atomic Energy Commission (radioactive substances)

Department of the Interior—

- Bureau of Reclamation
- Bureau of Land Management (public lands)
- Bureau of Indian Affairs (Indian lands)
- Bureau of Sport Fisheries and Wildlife
- Bureau of Outdoor Recreation
- Geological Survey
- Office of Saline Water

Environmental Protection Agency

Department of Health, Education, and Welfare

Department of Defense—

- Army Corps of Engineers
- Department of the Navy (ship pollution control)

National Aeronautics and Space Administration (remote sensing)

Department of Transportation—

- Coast Guard (oil spills, ship sanitation)

Department of Commerce—

- National Oceanic and Atmospheric Administration

Water Resources Council

River Basin Commissions (as geographically appropriate)

Marine Pollution, Commercial Fishery Conservation, and Shellfish Sanitation

Department of Commerce—

- National Oceanic and atmospheric Administration

Department of Defense—

- Army Corps of Engineers
- Office of the Oceanographer of the Navy

Department of Health, Education, and Welfare

Department of the Interior—

- Bureau of Sport Fisheries and Wildlife
- Bureau of Outdoor Recreation

Bureau of Land Management (outer continental shelf)
Geological Survey (outer continental shelf)
Department of Transportation—
Coast Guard
Environmental Protection Agency
National Aeronautics and Space Administration (remote sensing)
Water Resources Council
River Basin Commissions (as geographically appropriate)
Waterway Regulation and Stream Modification
Department of Agriculture—
Soil Conservation Service

APPENDIX J

Tables on Impact Statements From 102 Monitor

SUMMARY OF 192 STATEMENTS FILED WITH THE CEQ THROUGH MARCH 31, 1976 (BY AGENCY)

Agency	Draft 102's for actions on which no final 102's have yet been received	Final 102's on legislation and actions	Total actions in which draft of final state- ments have been received
Agriculture, Department of.....	221	634	855
Appalachian Regional Commission.....	1	0	1
Architect of the Capitol.....	0	1	1
Atomic Energy Commission.....	42	144	186
Canal Zone Government.....	0	1	1
Civil Aeronautics Board.....	0	1	1
Commerce, Department of.....	26	44	70
Defense, Department of.....	8	7	15
Air Force.....	10	9	29
Army.....	3	22	25
Army Corps of Engineers.....	591	921	1,512
Navy.....	13	34	47
Delaware River Basin Commission.....	2	8	10
Energy Policy Office.....	0	1	1
Energy Research and Development Administration.....	7	3	10
Environmental Protection Agency.....	35	73	108
Federal Energy Administration.....	5	1	6
Federal Maritime Commission.....	3	0	3
Federal Power Commission.....	90	52	142
General Services Administration.....	25	93	118
HEW, Department of.....	3	15	16
HUD, Department of.....	56	157	213
Interior, Department of.....	160	336	496
International Boundary and Water Commission—United States and Mexico.....	1	8	9
Interstate Commerce Commission.....	9	7	16
Justice, Department of.....	2	3	5
Labor, Department of.....	5	2	7
National Aeronautics and Space Administration.....	10	22	32
National Capital Planning Commission.....	5	8	13
National Science Foundation.....	1	6	7
New England River Basins Commission.....	3	0	3
Nuclear Regulatory Commission.....	11	21	32
Office of Science and Technology.....	0	1	1
Ohio River Basin Commission.....	1	0	1
Pacific Northwest River Basins Commission.....	3	0	3
Pennsylvania Avenue Development Corporation.....	0	1	1
Souris-Red-Rainy River Basins Commission.....	1	0	1
State Department.....	3	5	8
Tennessee Valley Authority.....	8	26	34
Transportation, Department of.....	1,000	2,104	3,104
Treasury, Department of.....	4	7	11
Upper Mississippi River Basin Commission.....	1	0	1
U.S. Postal Service.....	4	0	4
U.S. Water Resources Council.....	6	9	15
Veterans Administration.....	1	9	10
Total.....	2,380	4,806	7,186

TABLE 3.—*Environmental assessments prepared, by agency, fiscal year 1975*

Agriculture:	
Forest Service-----	Prepared in Ranger districts for all actions affecting forest resources
Soil Conservation Service-----	Prepared for all watershed projects; 78 resource conservation and development project assessments prepared
Commerce -----	345
Defense -----	Estimated 1 per project: several thousand
Air Force-----	Not Available.
Army -----	Do.
Navy -----	Do.
Corps of Engineers-----	Estimated 10,000
Health, Education, and Welfare-----	Approximately 237 ¹
Housing and Urban Development-----	Approximately 5,000
Interior -----	Not Available.
Bureau of Indian Affairs-----	Do.
Bureau of Land Management-----	Prepared on all projects: 9,431
Bureau of Outdoor Recreation-----	Prepared for all grants projects: approximately 2,500
Bureau of Reclamation-----	136
Fish and Wildlife Service-----	Approximately 60-65
National Park Service-----	Approximately 150
Geological Survey-----	Not Available.
Justice: Law Enforcement Assistance Administration -----	6
Labor: Occupational Safety and Health Administration -----	18
State -----	5
Transportation -----	Not Available.
Federal Aviation Administration-----	900-1,100
Federal Highway Administration-----	Approximately 2,500
Treasury -----	5 Assessments, equivalent of negative determinations
Energy Research and Development Administration -----	Not Available.
Environmental Protection Agency-----	Do.
Federal Energy Administration-----	2
Federal Power Commission-----	600
General Services Administration-----	430
Nuclear Regulatory Commission-----	60

¹ Includes 2 EISs; approximately 235 assessments lead to formal negative determinations.

TABLE 4.—*DRAFT ENVIRONMENTAL IMPACT STATEMENTS FILED, BY AGENCY, 1970-75*

Agency-----	1970	1971	1972	1973	1974	1975
Agriculture-----	62	79	124	166	179	189
Commerce-----	0	8	12	15	12	13
Defense-----	5	27	24	19	26	14
Corps of Engineers-----	119	136	211	243	303	273
Health, Education, and Welfare-----	0	1	11	4	0	3
Housing and Urban Development-----	3	23	26	22	21	178
Interior-----	18	65	107	119	109	67
Justice-----	0	0	3	1	1	0
Labor-----	0	0	0	3	1	4
State-----	0	0	3	1	3	1
Transportation-----	61	1,293	674	432	360	229
Treasury-----	2	2	5	0	2	0
Energy Research and Development Administration-----						7
Environmental Protection Agency-----	0	16	13	26	14	23
Federal Energy Administration-----						5
Federal Power Commission-----	0	0	38	16	12	29
General Services Administration-----	3	34	6	24	26	23
Nuclear Regulatory Commission-----						26
All others-----	14	64	63	26	37	13
Total-----	319	1,950	1,385	1,145	1,137	1,010

¹ Total includes 27 EIS's prepared by local governments under the community development block grant program.

APPENDIX K

CEQ Contract Studies: Categories and Total Awards

CEQ contact studies: Categories and total awards

A. The environmental effects of energy exploration, development, distribution, and conservation-----	\$3, 429, 336
B. Land use issues-----	1, 511, 188
C. Economic impacts of Federal environmental policy-----	786, 762
D. NEPA implementation studies-----	396, 914
E. Monitoring and indexes development-----	945, 718
F. Annual report-----	99, 397
G. General (nonclassifiable)-----	620, 901
H. Toxic substances/pesticides-----	414, 492
I. Wildlife/predator control-----	138, 065
J. Resource recovery-----	73, 045
Total -----	8, 397, 818

The attached lists were provided by the Council on Environmental Quality. The categories were developed by the Interior Committee. Assignments of individual contracts to categories necessarily involve some overlapping and arbitrary choice of classification.

CEQ STUDY CONTRACTS
[Fiscal years 1970 through 1976]

Contract No.	Contractor and purpose	Contract amount
FISCAL YEAR 1970		
CEQ 1-70----- (E)	Mitre Corp. To identify those environmental parameters and indices most useful to decision-making at various levels of government.	\$129, 819
FISCAL YEAR 1971		
CEQ 1-71----- (J)	Midwest Research Institute To provide information on technology applicable to resource recovery.	29, 700
CEQ 2-71----- (B)	Ross, Hardies, O'Keefe, Babcock & Parsons A study to examine the land use control powers exercised under laws or institutions of certain States.	69, 800
CEQ 3-71----- (G)	Arthur D. Little, Inc. To evaluate the environmental, physical, and economic effects of stream channel modification.	145, 000
CEQ 4-71----- (J)	Midwest Research Institute To provide economic data and analyses concerning the recovery of paper, metals, etc., from solid wastes.	39, 207
CEQ 5-71----- (G)	Mitre Corp. To provide basic data, analyses, and computations relating to oil spills, radioactivity and air pollution.	22, 723
FISCAL YEAR 1972		
CEQ 1-72----- (I)	University of Michigan To review and evaluate the environmental impacts of the predator control an associated animal control programs.	47, 935
CEQ 2-72----- (C)	Chase Econometrics Associates, Inc. To measure the aggregate changes in the U.S. economy as a result of increasing costs to control air and water pollution.	12, 000
CEQ 3-72-----	A. D. Little, Inc.	33, 735
CEQ 11-72-----	A. T. Kearney & Co.	30, 000
CEQ 4-72-----	Booz Allen Public Administration Services	31, 976
CEQ 5-72-----	Boston Consulting Group	29, 000
CEQ 6-72-----	Charles River Associates, Inc.	41, 576
CEQ 7-72-----	Chase Econometrics Associates, Inc.	23, 700
CEQ 8-72-----	Dunlap & Associates, Inc.	32, 500
CEQ 9-72-----	Ernst & Ernst	24, 380
CEQ 10-72----- (C)	National Economic Research Associates The above 9 studies were to identify, analyze, and, where possible, to measure the economic adjustments facing specific industries as a result of new environmental standards.	20, 016

Contract No.	Contractor and purpose	Contract amount
CEQ 12-72	Earth Satellite Corp.	24,947
CEQ 13-72	Enviro Control, Inc.	24,100
CEQ 14-72	Smithsonian Institution	26,000
CEQ 15-72	Stanford Research Institute	25,000
CEQ 16-72	Mitre Corp.	50,689
(E)	The above 5 studies were to develop indicators of environmental quality in certain specific areas.	
CEQ 17-72	National Institute of Municipal Law Officers	6,500
(G)	To prepare a report on significant and innovative measures taken by local governmental units to protect and enhance the environment of municipal areas.	
CEQ 18-72	Booz Allen Public Administration Services	18,812
(C)	To study the potential economic impact on the steel industry of costs of meeting Federal air and water pollution abatement requirements.	
CEQ 19-72	Midwest Research Institute	4,138
(J)	For report on environmental impacts, economics and technology regarding recycling and resource recovery trends.	
CEQ 20-72	InterTechnology Corp.	5,060
(A)	To collect and analyze data relating to the environmental impact and environmental control costs for a variety of energy systems.	
CEQ 21-72	Arthur D. Little, Inc.	141,800
(A)	To develop environmental, technological and economic information on potential effects of receiving supertankers in U.S. ports, harbors, and coastal waterways.	
FISCAL YEAR 1973		
EQC 301	Ross, Hardies, O'Keefe, Babcock and Parsons	65,037
(B)	A study of the constitutional limits of governmental authority to regulate the use of privately owned land without paying compensation to the owners.	
EQC 302	Enviro Control, Inc.	29,958
(G)	A study of the costs and effects of storm water separation.	
EQC 303	Decision Sciences Corp.	6,000
(C)	A literature search and analysis of energy supply and/or demand models.	
EQC 304	Chase Econometric Associates, Inc.	2,300
(C)	A study to analyze the economic impact of meeting automobile exhaust emission standards.	
EQC 305	Development Sciences, Inc.	4,998
(B)	A report on criteria for expressing land-use goals.	
EQC 306	Earth Satellite Corp.	64,048
(E)	A study to develop land-use indicators of environmental quality.	
EQC 307	Hittman Associates, Inc.	15,000
(G)	A comparison of the environmental impact of alternative strategies to attain compliance with SO _x standards in the midwest.	
EQC 308	Hittman Associates, Inc.	283,989
(A)	A study to assess the environmental impacts of various energy systems.	
EQC 309	Booz, Allen Public Administration Services	19,147
(C)	A study to analyze the economic impact of air and water pollution control requirements on the steel industry.	
EQC 310	Public Interest Economics Center	29,839
(C)	Study of the impact of pollution control costs for water and air pollution and solid wastes on income distribution in the United States.	
EQC 311	Midwest Research Institute	172,770
(H)	An examination of the production, distribution, use and environmental impact potential of selected pesticides.	
EQC 313	American Society of Planning Officials	192,360
(B)	A report on the characteristics of the markets and environmental and socio-economic impacts of leisure home developments and related activities.	
EQC 314	Systems Control, Inc.	53,723
(C)	Evaluation of the trade-offs between accelerated installation of sulfur oxide control systems on utility boilers and utility system reliability, generating costs, and sulfur emissions.	
EQC 315	Battelle Memorial Institute (Columbus)	99,505
(E)	A study to identify appropriate parameters which describe the nature and extent of cross-media impacts stemming from pollution controls.	
EQC 316	Battelle Memorial Institute (Pacific Northwest)	71,000
(C)	A comparison of alternative strategies for the treatment and disposal of municipal sewage in terms of their economic costs and environmental effects.	
EQC 317	Environmental Impact Center, Inc.	200,000
(B)	A study of the range of occurrence of secondary effects associated with land-based transportation systems and waste water collection and treatment systems; and to develop a projective methodology for estimating these effects.	
EQC 318	Real Estate Research Corp., Inc.	150,000
(B)	A study of the economic and environmental effects of alternative development patterns for residential, commercial, and public areas on the level of the neighborhood, the community, and the metropolitan area.	
EQC 319	Radian Corp.	123,000
(A)	A study of the environmental impact of refineries, petroleum processing facilities and associated powerplants.	
EQC 320	Presearch Inc.	47,448
(D)	A study of the impact that the NEPA has had on the decisionmaking process of the U.S. Navy Department.	
EQC 321	Real Estate Research Corp.	25,000
(B)	Development of a conceptual analysis of the problem of public access to water resources and the shoreline.	

Contract No.	Contractor and purpose	Contract amount
EQC 322 (C)	Data Resources, Inc. An econometric investigation of the demand for gasoline and other petroleum derived fuels and to determine the impact of additional gasoline excise taxes on the general economy.	51,680
EQC 324 (D)	VTN Consolidated, Inc. A study of the impact that the NEPA has had on the decisionmaking processes of the Forest Service and Bureau of Land Management.	139,600
EQC 325 (H)	RvR Consultants A study of the farmers' pesticide use decisions and attitudes on alternate crop protection methods.	41,722
EQC 326 (E)	National Academy of Sciences A study to consider the need for environmental assessments and indicators; in what format they should be; and how they will be used.	60,000
EQC 327 (A)	Mathematica, Inc. To provide the CEQ with assistance in preparation of a basic reference work summarizing the relevant considerations in offshore nuclear powerplants encompassing generic, configurational and site specific issues.	151,567
EQC 328 (A)	University of Oklahoma Research Institute Assessment of the status of oil and gas operations in the North Sea and the environmental effects.	32,972
EQC 329 (I)	Roland C. Clement To provide an evaluation on nongame species management programs.	15,000
EQC 330 (A)	Massachusetts Institute of Technology A study of the environmental consequences of hypothetical petroleum resources developments on the Atlantic Outer Continental Shelf and the Gulf of Alaska.	117,012
EQC 331 (A)	ICF, Inc. A study to research and analyze several specific aspects of energy conservation and to assist in formulating further research efforts.	144,500
EQC 323 (A)	Control Data Corp. For provision of computer services in connection with the superport study.	7,500
EQC 323 (A)	National Science Foundation Development of a quantitative model of the principal input and output parameters of domestic energy systems.	50,000
EQC 323 (A)	National Oceanic and Atmospheric Agency A study of the relative effects of the construction of supertanker facilities upon the marine environment.	50,000
FISCAL YEAR 1974		
EQ4AC001	Cheney, Miller, Ellis & Associates	17,310
EQ4AC002	Resource Planning Associates	153,169
EQ4AC003	Resources for the Future	16,700
EQ4AC007	Virginia Institute of Marine Sciences	120,000
EQ4AC008	University of Alaska	20,000
EQ4AC009	ECO, Inc.	40,000
EQ4AC010	Tetra Tech, Inc.	41,000
EQ4AC011	Cheney, Miller, Ellis & Associates	13,500
EQ4AC012	Environmental Law Institute	24,944
EQ4AC015	National Academy of Sciences	72,800
EQ4AC020 (A)	A. D. Little, Inc. All of the above contracts were associated with the CEQ study of the environmental impact of potential oil and gas development on the Atlantic Outer Continental Shelf and the Gulf of Alaska.	30,000
E4AQ004 (C)	Chase Econometrics, Inc. A study to determine the effects of various original purchase tax and regulatory schemes on consumer demand for new automobiles and gasoline consumption.	44,280
EQ4AC005 (A)	Mathematica, Inc. To analyze, summarize, and synthesize, into 1 report the results of CEQ sponsored and other studies on the economic, social, and environmental impacts of petroleum deepwater port development.	24,083
EQ4AC006 (A)	Hittman Associates, Inc. A study to assess technological innovations which would enable automobile manufacturers to respond to a range of possible government policies designed to minimize fuel consumption.	64,810
EQ4AC013 (G)	Case Western Reserve University A study of 4 selected basic ecological cycles that maintain life on Earth; phosphorus, nitrogen, energy, and water.	30,000
EQ4AC014 (G)	Enviro Control, Inc. To study and analyze the activities of Federal agencies, State and local governments, and private groups in monitoring and planning related to achievement of objectives of the FWPCA Amendments of 1972.	50,000
EQ4AC016 (F)	Bureau of National Affairs, Inc. To prepare a written summary of major developments regarding the environment that occurred between July 1, 1973, and Jan. 1, 1974.	5,720
EQ4AC017 (A)	ECO Systems, Inc. To plan a study employing risk analysis to examine the safety aspects associated with the shipping, transfer, and storage of LNG.	5,453
EQ4AC018 (F)	International Research & Technology, Inc. To provide analytical support for the purpose of using the EPA's strategic environmental assessment system to provide data for the CEQ annual report.	9,998
EQ4AC019 (G)	Urban Systems Research & Engineering, Inc. To prepare a handbook containing information on the recreational use of domestic water supply reservoirs.	29,784

Contract No.	Contractor and purpose	Contract amount
EQ4AC021 (D)	Environmental Law Institute To complete 3 case studies of instances when the National Environmental Policy Act has had a salutary influence on Federal decisionmaking.	22, 853
EQ4AC022 (A)	Resource Planning Associates To perform a study of energy supply and demand alternatives for the Appalachian region.	130, 000
EQ4AC023 (A)	Arthur D. Little, Inc. To develop energy consumption baselines for the residential and commercial sectors and evaluate these baselines in terms of price-sensitivity and energy conservation policy options.	114, 450
EQ4AC024 (A)	Energy & Environmental Analysis, Inc. A study of the potential for industrial energy conservation and related Federal policy options.	57, 791
EQ4AC025 (A)	Jack Faucett Associates To develop price-sensitive energy projections in the transportation sector and to evaluate certain policy options.	99, 979
EQ4AC026 (C)	Public Interest Economics Center, Inc. A study of the extent to which environmental regulations induce U.S. firms to move to foreign countries, and the impacts of U.S. exports of raw materials on the competitive position of U.S. firms.	20, 000
EQ4AC027 (B)	Urban Systems Research & Engineering, Inc. To study the characteristics of interceptor sewers funded under Public Law 92-500.	42, 360
EQ4AC028 (A)	RMC Research Corp. To study the prospects for energy conservation in the intercity passenger transportation sector.	69, 821
EQ4AC029 (C)	Rath & Strong, Inc. A study to determine the impact of fuel economy regulations on the automobile industry.	7, 000
EQ4AC030 (B)	Data Resources, Inc. To provide assistance in the evaluation of national energy demands.	20, 000
EQ4AC031 (B)	Urban Institute To study the effects on land use of Federal revenue programs.	111, 483
EQ4AC032 (A)	Development Sciences, Inc. To study the energy consumption associated with measures undertaken to protect the environment.	50, 000
EQ4AC033 (B)	Regional Science Research Institute A study to determine the effectiveness of preferential taxation schemes in controlling land use.	65, 750
EQ4AC034 (D)	University of Oklahoma Research Administration To develop a methodology and documentation for consistent analysis of energy alternatives for environmental impact statements.	133, 713
EQ4AC035 (H)	Massachusetts Institute of Technology To study the impact of governmental restrictions on the production and use of chemicals.	150, 000
EQ4AC036 (H)	RvR Consultants, Inc. To evaluate past and current integrated pest management programs in the United States for cotton, peanuts, and tobacco.	50, 000
EQ4AC037 (A)	Radian Corp. To evaluate the environmental impacts, technical feasibility, efficiency and ancillary raw materials and energy consumption for various western energy resource development options.	171, 864
EQ4AC038 (D)	E. Philip Soper To develop a study plan for the investigation of comments submitted on environmental impact statements.	5, 000
EQ4AC039 (C)	Real Estate Research Corp. To carry out analyses on the economic effects of alternative development patterns to supplement the work done under contract EQC 318.	99, 900
EQ4AC040 (A)	A. D. Little, Inc. To provide consulting assistance to CEQ on the study of the environmental impact of potential oil and gas development on the Atlantic Outer Continental Shelf and the Gulf of Alaska.	8, 941
FISCAL YEAR 1975		
EQ5AC001 (B)	Real Estate Research Corp. To assist in preparation of the final reports for cost of sprawl study.	7, 500
EQ5AC002 (C)	Chase Econometrics Associates To analyze the macroeconomic impacts of pollution control expenditures.	36, 718
EQ5AC003 (A)	Bolt, Beranek & Newman, Inc. To analyze maritime shipping activity off the east coast of Florida and its relationship to proposed offshore nuclear plant sites.	3, 500
EQ5AC004 (C)	Temple, Barker, & Sloane, Inc. To study the impact of air and water pollution control expenditures on the electric utility industry.	11, 766
EQ5AC005 (G)	Somet Associates To review and analyze the impact of Project Independence upon the responsibilities of different agencies in the Federal Government.	15, 000
EQ5AC006 (I)	Wildlife Management Institute To study current and needed nongame wildlife programs and funds.	25, 371
EQ5AC007 (A)	Stanford Research Institute To study the economics of various options for the development of western energy resources.	232, 500

Contract No.	Contractor and purpose	Contract amount
EQ5AC008.....	Stanford Research Institute.....	97,500
(A)	To supply computer costs for EQ5AC007.	
EQ5AC009.....	The Johns Hopkins University.....	14,500
(G)	To provide the CEQ with studies and analyses relating to environmental health issues.	
EQ5AC010.....	Mitre Corp.....	55,984
(E)	To develop a national environmental statistical abstract.	
EQ5AC012.....	Enviro Control, Inc.....	44,858
(C)	To perform a state-of-knowledge demonstration assessment, and enhancement of the utility and potential applications of air pollution damage functions.	
EQ5AC013.....	The Council on the Environment of New York.....	30,493
(G)	To assess the probable social, economic, and environmental impacts of alternative transportation control strategies.	
EQ5AC014.....	Energy Resources Co., Inc.....	180,716
(E)	A comparative testing and evaluation of techniques for the interpretive analysis of water quality.	
EQ5AC015.....	Battelle Memorial Institute (Columbus).....	5,445
EQ5AC016.....	A. D. Little, Inc.....	5,000
EQ5AC017.....	Resources for the Future.....	6,000
EQ5AC018.....	Radian Corp.....	5,000
EQ5AC019.....	Bechtel Corp.....	8,000
(A)	The above 5 contracts were for technical assistance and to review data for the western energy resources study.	
EQ5AC020.....	Vitro Laboratories.....	83,679
(F)	To perform a 1-yr demonstration of the feasibility and usefulness of establishing and adapting a data access terminal facility for use in CEQ offices.	
EQ5AC021.....	Gary C. Thom.....	5,000
(E)	To assist in the development, promulgation, and implementation of recommended standard formats and/or indices for the short-term public reporting of urban air quality by local agencies.	
EQ5AC023.....	New York Scientists' Committee for Public Information, Inc.....	5,000
(G)	To assess the probable social, economic, and environmental impacts of alternative transportation control strategies.	
EQ5AC024.....	Urban Systems Research & Engineering, Inc.....	35,900
(B)	To prepare a handbook for assessing the secondary effects of government infrastructure investments.	
EQ5AC025.....	Duncan & Jones.....	15,000
(B)	To study the considerations given to land use and associated environmental impacts of the proposed Sacramento, Calif., regional wastewater treatment system.	
EQ5AC026.....	ICF, Inc.....	212,221
(A)	To provide assistance to the CEQ in carrying out its analysis and evaluation of the nonnuclear energy research and development programs under sec. 11, Public Law 93-577.	
EQ5AC027.....	TransCentury Corp.....	37,961
(A)	To assist the CEQ in conducting and evaluating public hearings required by sec. 11, Public Law 93-577.	
EQ5AC028.....	Urban Institute.....	355,000
(B)	A study of the economic, environmental, natural resource, and social implications of alternative metropolitan area development patterns.	
FISCAL YEAR 1976		
EQ6AC001.....	D. A. Aggerholm.....	17,160
(D)	To prepare a preliminary report on the appropriate scope of environmental impact statements.	
EQ6AC005.....	George M. VanDyne.....	31,140
(D)	Preparation of procedure for approaching environmental impact analyses on grazing land management problems.	
EQ6AC007.....	Energy Resources Co., Inc.....	59,708
(A)	A study of the environmental research and development needs relative to coal-using technologies.	
EQ6AC008.....	Gary C. Thom.....	6,700
(E)	For reports, analyses, and assistance related to standard air pollution index.	
EQ6AC009.....	The Franklin Institute Research Laboratories.....	33,055
(A)	A study of the research and development needs related to rapid and widespread adoption of heat pump technology for space heating and cooling.	
EQ6AC010, EQ6AC018.....	Denver Research Institute.....	300,000
(A)	To develop and demonstrate an acceptable methodology for studying the socio-economic impacts of various options for the development of western energy resources.	
EQ6AC011.....	Daniel B. Tunstall.....	38,132
(E)	To assist in the preparation of Annual Compendium of Environmental Statistics, 1976, and Environmental Quality Indicators, 1976.	
EQ6AC012.....	New York Council on the Environment.....	82,665
(G)	Analysis of the costs and effectiveness of carpooling and dedicated bus lanes for reducing automobile air pollution.	
EQ6AC013.....	Ross, Hardies, O'Keefe, Babcock & Parsons.....	39,000
(B)	To perform study and prepare a manuscript on innovative land use controls in cities.	
EQ6AC014.....	GKY & Associates.....	19,358
(G)	To analyze national data on oil spills and oil spill cleanup activities.	
EQ6AC015.....	Chase Econometrics, Inc.....	16,000
(C)	Analyses of the macroeconomic impacts of Federal air and water pollution control legislation on the U.S. economy.	

Contract No.	Contractor and purpose	Contract amount
EQ6AC016----- (G)	ICF, Inc.----- To assess the impacts of various legislative proposals to control strip mining.	60,000
EQ6AC017----- (E)	Stanford Research Institute----- To assist in preparing Environmental Quality Indicators, 1976, and Compendium of Environmental Statistics, 1976.	115,695
EQ6AC019----- (I)	Environmental Law Institute----- To research, draft, and assist in publishing a book on wildlife law in the United States.	49,759
EQ6AC022----- (B)	Real Estate Resources Corp.----- A study to assess the benefits and costs of implementing coastal zone management plans.	107,000
EQ6AC024----- (B)	Engineering-Science, Inc.----- A study to analyze the air pollution implications of alternative metropolitan area development patterns.	25,000
EQ6AC026----- (E)	Sigma Data Computing Corp.----- To assist in several information system development and data processing activities.	39,383

EXECUTIVE OFFICE OF THE PRESIDENT,
COUNCIL ON ENVIRONMENTAL QUALITY,
Washington, D.C., December 13, 1976.

MISS DEBORAH H. MERRICK,
Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR DEBBIE: Enclosed is the list of in-house studies done by the Council since 1970. We attempted to estimate the approximate cost of each study but subsequently determined that any figure we could give you would be so inaccurate as to be useless. Each of the studies is the product of a number of staff members whose time was also spent on other duties. We have never made it a practice to compile the number of man-hours contributed toward a given study or function. In addition, some of the studies were the result of inter-agency efforts and we have no way of knowing the number of man-hours expended.

If we can assist you with any additional information, please give me a call.

Sincerely,

STEVEN D. JELLINEK,
Staff Director.

Enclosure.

CEQ IN-HOUSE STUDIES, FISCAL YEARS 1970-76

"Environmental Quality-An Annual Report": A report on the status and condition together with current and foreseeable trends in the quality of the environment. Reports have been issued annually 1970 through 1976.

"Ocean Dumping--A National Policy" (1970): A comprehensive study recommending a national policy on control of ocean dumping.

"Toxic Substances" (1971): A study of the problems associated with toxic substances in the environment and recommendations for their control.

"PCB's and the Environment" (1971): A report on coordination of the Federal Government scientific efforts at understanding PCB's and the Government's ability to protect the public from actual or potential hazards associated with them.

"Integrated Pest Management" (1973): An examination of pest damage, a discussion of what integrated pest management is and major techniques which can be used as part of an integrated pest management program.

"Coal Surface Mining and Reclamation" (1973): A study of the state of the art of mining and reclamation technology and the social, economic and environmental effects of slope angle prohibitions.

"Energy and the Environment-Electric Power" (1973): A comparison of the systemwide environmental impacts of a 1,000 megawatt powerplant fueled alternatively by coal, oil, natural gas and nuclear energy.

"The Half and Half Plan" (1974): A proposal to stimulate serious examination of the opportunities for energy conservation.

"Report of the Interagency Working Group on Environmental Control Technology for Energy Systems" (1974): A study to develop a Federal research and development program dealing with environmental control technologies for expanded energy use.

"OCS Oil and Gas—An Environmental Assessment" (1974): A study of the environmental impact of oil and gas production on the Atlantic outer continental shelf and in the Gulf of Alaska.

"Report of the Interagency Working Group on Health and Environmental Effects of Energy Use" (1974): A study to develop a Federal research program dealing with human and environmental effects of expanded energy use.

"The Delaware River Basin" (1975): An environmental review of the Delaware River Basin.

"Pollution Control and Employment" (1975): An analysis and summary of various studies analyzing the impact of pollution control programs on employment.

"Environmental Programs and Employment" (1975): An analysis of various environmental programs which could be quickly implemented to provide more employment opportunities.

"Fluorocarbons and the Environment" (1975): An assessment of the potential effects of fluorocarbons on the stratosphere and recommendations for Federal action.

"Macro-Economic Impacts of Pollution Control Programs" (1975, 1976): A summary and analysis of various studies analyzing the macro-economic impact of pollution control programs.

"Environmental Impact Statements" (1976): An analysis of six years experience of Federal agencies in implementing Section 102(2)(C) of NEPA.

"Environment and Conservation in Energy Research and Development" (1976): An analysis of the adequacy of attention to energy conservation methods and to environmental protection with respect to Federal nonnuclear energy RD&D programs.

"Potential Modifiers of the Stratosphere" (1976): A study concerned with problems and needs associated with potential modifiers of the stratosphere.

"Estimates of Baseline Pollution Control Expenditures" (1976): Estimates of the amount of pollution control expenditures that would have been made by industry and government in the absence of Federal Pollution Control Legislation.

"Energy and the Coastal Environment": A study analyzing the probable impacts of new energy systems on the coastal zone and where and how energy development can be managed with most advantage and least cost to coastal communities and the natural environment (to be published early in 1977).

"A Recommended Standard Air Pollution Index Report of the CEQ/Inter-agency Task Force on Air Quality Indicators" (to be published early in 1977).

APPENDIX L

Recommendations of 1971 Oversight

SUMMARY OF RECOMMENDATIONS AND SPECIFIC ACTIONS

A. MANAGEMENT OF THE "102" PROCESS

1. CEQ should clearly define the kinds of action on which draft "102" statements will not be made available to the public due to possible prejudicing of government chances for economic purchase.

2. CEQ, in future revisions of guidelines to the agencies, should provide concise descriptions of the purposes and character of draft statements, as contrasted to final statements, taking into account the various categories of Federal actions.

3. CEQ should provide further guidance to the agencies on the scope and content of agency comments on draft statements to increase the usefulness and relevance of interagency communication.

4. CEQ, as a means of preventing the suppression of adverse comments, should clarify in their guidelines to the agencies how and when comments on draft statements are to be released and also describe alternate mechanisms for doing so in a timely manner.

5. CEQ should revise its guidelines to make it clear that the general public has the right to review at every stage of the proceedings, (1) documents developed by or for agencies which support positions and allegations in "102" statements and comments, and (2) work performed by outside consultants for agencies on projects or studies which may have environmental implications. The only cases in which such material might legitimately be withheld would be those where national security might be involved, or where premature disclosure might increase ultimate costs of procurement to the government.

6. CEQ should concentrate more effort on assisting the Federal agencies to determine which of their "actions" are environment-affecting and therefore qualify for the "102" process of preparing environmental impact statements.

7. CEQ and OMB should carefully monitor "102" statements on proposed legislation, in the coming months, to ascertain the usefulness of the environmental information generated in terms of the legislative process.

8. OMB should take the necessary steps to acquire annual summaries of actions on which agencies determine that it is unnecessary to prepare "102" statements and also of actions which the agencies anticipate will be highly controversial in terms of environmental effects.

9. CEQ and OMB should cooperatively develop a new public information approach for making available, in consolidated form, all environmental statements on proposed legislation.

B. REVIEW OF AGENCY ACTIVITIES IN THE ENVIRONMENTAL AREA

1. The heads of all agencies should be requested to designate a permanent investigating committee to undertake continuing review of environmental protection opportunities.

2. The review efforts of such investigative groups should concentrate on uncovering deficiencies or inconsistencies in statutory authority, administrative regulations, and current policies and procedures (including loans, grants, contracts, leases, licenses and permits).

3. Each investigative group should issue a report, available to the public, which itemizes the steps which have been taken to bring agency policies, procedures, and administrative regulations into conformity with the National Environmental Policy Act, and recommend legislative proposals which will improve agency involvement in the field of environmental management.

4. The Atomic Energy Commission should revise its views that NEPA does not require it to look behind state certification of water quality standards. NEPA requires an independent Federal evaluation of the environmental consequences of all major Federal actions significantly affecting the quality of the human environment.

5. The Department of State, in consultation with CEQ, should reconsider its position that AID supported projects need not be accompanied by "102" statements. Such a position is contrary both to the language and to the intent of NEPA. (Discussed on page 32)

C. FUTURE ACTIVITIES OF THE COUNCIL ON ENVIRONMENTAL QUALITY

1. CEQ should strengthen its scientific capability to :

Assure its internal competence to translate scientific and technical information into independent policy advice for the President ;

Avoid being overwhelmed or misled by scientific information from agency or non-government protagonists and antagonists in environmental controversies ;

Develop environmental quality indicators which allow the quantification of subjective values (e.g., esthetics, recreation, amenities) for complete cost-benefit analyses ;

Maintain a credible preeminence among Federal departments, agencies and offices in environmental knowledge as applied to national policy ;

Judge the health and strength of environmental sciences and participate in planning research, training and institution building for these disciplines ;

Lead the scientific component of United States delegations to international environmental conferences and coordinate any subsequent technical activities ; and,

Formulate and guide a National Environmental Data System for the identification, evaluation, referral and transfer of environmental information as a basis of management decisions at all levels of government and the private sector.

* * * * *

SCIENCE AND RESEARCH CAPABILITIES

General Recommendation: The future growth of CEQ in staff and budget must establish a strong interdisciplinary capability in environmental sciences.

Good environmental policy and effective management depend on timely, valid and complete scientific information. The laws and Executive Order controlling the CEQ clearly call upon the agency to equip itself with scientific expertise, to sponsor research, to analyze available facts and findings, and to facilitate the transfer of environmental information.

Section 201 of NEPA specifies that the annual Environmental Quality Report contain technical discussion of the status and condition of the environment, current and foreseeable trends and the adequacy of available natural resources. Section 204 instructs the Council to gather timely and authoritative information to compile and submit studies, to document and define changes and to accumulate necessary data.

Section 204(5) refers to investigations, studies, surveys, research and analysis relating to ecological systems and environmental quality. Reorganization Plan No. 3 of 1970 transferred to EPA authority to perform studies relating to ecological systems but made it clear that the CEQ would retain the necessary authority to conduct studies and research related to environmental quality. This ambiguous language in no way diminishes the scope of scientific activities of the Council nor does it reduce its need for experienced well-trained scientists as intended originally by the Congress.

Executive Order 11514 details the responsibilities of the Council in Section 3(e) to promote the development and use of indices and monitoring and to "foster investigations, studies, surveys, research, and analyses" including technology assessment.

The Environmental Quality Improvement Act (Title II of P.L. 91-224) calls for the Office of Environmental Quality, through its Director (the Chairman of the CEQ), to promote the advancement of scientific knowledge (Section 203(d)(4)) and refers to collecting, collating, analyzing, and interpreting data and information (Section 203(d)(7)). Although CEQ and OEQ functions and budgets have been consolidated, the Committee reminds the Council that the intent of the Congress for a high level of scientific activity is again expressed in this statute.

Evidence that this requirement is being slighted includes the following items:

(1). Table 3 shows the educational background of the present Council and staff (as furnished to your Committee in biographical resumes). Only 4 persons have

advanced degrees in science, as contrasted with 8 diplomates in law (some with additional degrees in other fields).

(2) Testimony in both houses on Reorganization Plan No. 3 revealed uncertainty as to research coordination. It was averred that the CEQ had the broad responsibility for environment related research but that "it will be far easier to conduct ecological studies in an agency which is not limited to one particular medium or pollutant" (i.e., Environmental Protection Agency). As the Committee understands the definition of ecology this reasoning would make it even more logical for ecological studies to remain as an integral part of the CEQ program.

(3) The President's environmental message stated that "the Federal Government through the National Science Foundation and the CEQ will support the establishment of an Environmental Institute. The Committee has some reservations about the ability of such a unit to be appropriately responsive to Congressional information needs without a statutory base. In any event, the Committee reminds the Council that information is power and that a concentration of scientific knowledge in the Environmental Institute without a strong cadre of experts in the Council would tend to subvert the status of the latter and decrease its capability to operate as intended.

TABLE 3.—EDUCATIONAL BACKGROUND OF THE COUNCIL ON ENVIRONMENTAL QUALITY AND ITS STAFF, AS OF APR. 1, 1971 (23 PROFESSIONALS)

Field	Bachelor's degree	Master's	Doctorate
Not stated.....	8	2	
Law.....	(8)		
Science.....	5	4	4
Engineering.....	3	0	0
Journalism.....	2	0	0
Public administration.....	2	4	1
Political science.....	1	0	0
Economics.....	2	2	1
International relations.....	0	1	0
English.....	1	0	0
Urban planning.....	0	1	0

4. Other agencies have substantial scientific capability on which CEQ may rely. But, on the many matters of long range planning, impact statements and policy alternatives, the CEQ must deal from a parity of scientific understanding. In other words the Council must have the internal competence to detect invalid or incomplete scientific submissions from the agencies and other sources.

5. The Office of Science and Technology and the Federal Council for Science and Technology apparently retain substantial interest in environmental affairs. The projects of the President's Science Advisory Committee panels often deal with environmental questions. The government-wide coordination of environmental research rests with a FCST subcommittee. As an observer of those activities of a sister advisory agency in the Executive Office of the President, the CEQ must possess scientific competence or risk losing its access to the ear of the President on the highly technical problems which characterize environmental decisionmaking.

6. The NSF has established major environmental programs under the category of "Research Applied to National Needs." This is entirely proper but the ability of the CEQ to use the results again depends on its in-house expertise. The caveat mentioned above about power following information applies here as well.

Specific Actions

The Committee takes this opportunity to reiterate the intent of the Congress as expressed in the NEPA that the CEQ strengthen its scientific capability to:

Assure the internal competence to translate scientific and technical information into independent policy advice for the President.

Avoid being overwhelmed or misled by scientific information from agency or non-government protagonists and antagonists in environmental controversies.

Prepare the annual report on a detailed factual basis, expressing cause-and-effect relationship for environmental deterioration and improvement.

Develop environmental quality indicators which allow the quantification of subjective values (esthetic, recreation, amenities) for complete cost/benefit analyses.

Maintain a credible pre-eminence among Federal departments, agencies and offices in environmental knowledge as applied to national policy.

Judge the health and strength of environmental sciences and participate in planning research, training and institution building for these disciplines.

Lead the scientific component of United States delegations to international environmental conferences and coordinate any subsequent technical activities.

Formulate and guide a National Environmental Data System for the identification, evaluation, referral and transfer of environmental information as a basis of management decisions at all levels of government and in the private sector.

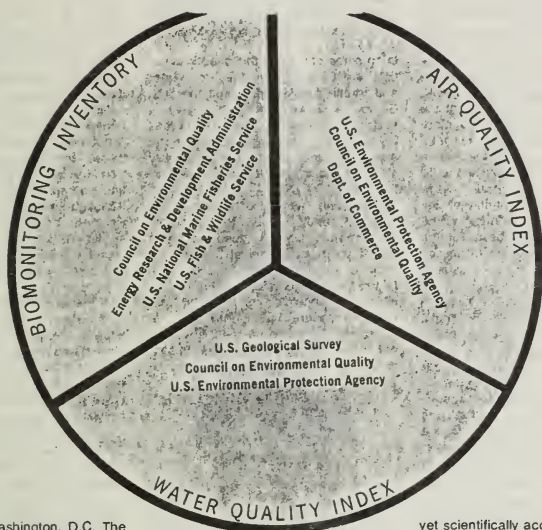
APPENDIX M
Educational Backgrounds of Staff

*Educational backgrounds of the Council on Environmental Quality staff
as of December 1976*

Field:	Number
Law -----	2
Engineering -----	1
Chemistry -----	3
Ecology -----	5
Economics -----	3
Forestry -----	1
Political science -----	2
Education -----	1
Planning -----	1
Physics -----	1

APPENDIX N

Description of Indexes Work



A measure of quality

CEQ and others are
developing indicators and
biological monitoring
information to assist the
nation's scientists and
decision-makers

It's August in Washington, D.C. The days are long, hot, humid and, in recent times, increasingly smoggy. Those who are fortunate take their annual leave of the city and migrate to the northern hinterlands or to the beaches. Those who remain behind bear the discomforts of summer days southern style plus the now constant barrage of "The Metropolitan Council of Governments (COG) Air Quality Index for 8 to 9 a.m. is 105 for the pollutant photochemical oxidants. This index value is in the hazardous range." After repeatedly hearing these COG pronouncements and experiencing the physical distresses of smog, the summer-stressed brain of Washingtonian man is jogged; curiosity overcomes him. What is this index? What does it mean?

Other people began to wonder, too, including the President's Council on Environmental Quality (CEQ) and the U.S. EPA. In the spring of 1974 they joined forces to conduct a first-of-its-kind survey of air pollution indices used by the 55 largest air pollution control agencies in the U.S. and Canada. Their expectations were not high at the onset, but the results of the survey were even more dismal than anticipated.

Distressful findings

The survey uncovered such great inconsistencies and confusion in the way air quality conditions were reported to the public that among the 33 largest U.S. cities and 5 states that report index values, no two indices were identical. Differences occurred in the way the agencies calculated their indices, in the number of pollutants included in the calculation, in the way the indices were re-

yet scientifically accurate guides for assessing local air quality on a short-term daily basis. Complex data collected on measured atmospheric pollutant concentrations are transformed into a single number or set of numbers—an air quality index—by using interpretive techniques. The existing array of indices in the U.S., however, creates confusion and inhibits the indices from being used in the assessment of air quality on a nationwide basis.

The results of the survey were published last month in "Air Pollution Indices: A Compendium and Assessment of Indices Used in the United States and Canada." The report's basic recommendation was the establishment of a Federal Interagency Task Force on Air Quality Indicators whose main responsibilities would be to establish a standard urban air quality index, and standardized index monitoring and reporting guidelines. The Task Force, chaired by James J. Reisa, coordinator of the environmental monitoring program at CEQ, was established in July 1975. In addition to CEQ, the other members come from EPA's Offices of Research and Development, Air and Waste Management and Planning and Management; the Department of Commerce has representatives from its Office of Environmental Affairs, the National Bureau of Standards and the National Oceanic and Atmospheric Administration.

An air quality index

The Task Force is now developing a standard index that it will publish as a recommendation this April. Along with the standard index, the Task Force will supply the user community—local and

ported to the public and in the variety of descriptor words, qualitative terms, used to interpret the index number. Furthermore, nearly all the indices differed from the long-term indices reported in the scientific literature. Because the technical basis for developing an index was not uniformly excellent throughout the U.S., the adequacy and meaningfulness of the information conveyed to the public was questionable.

The purpose of an index is to provide the public with simple, understandable

state agencies and the news media—with an index monitoring guidelines document, a "how-to" manual so-to-speak.

Simultaneous with the release of the recommended index, Reisa and other members of the Task Force will take part in a special session of the American Chemical Society Symposium to be held in New York City in April. At this session, a detailed description of the standard urban air quality index will be given, the health effects basis for the recommended index will be discussed and the anticipated benefits and uses of the index will be enumerated.

Although Reisa was not able to divulge the design of the index in detail, he did tell *ES&T* that the recommended index would

- incorporate many important features of two previously developed indices—the standardized urban air quality index and the primary standards index—both of which appear in the CEQ/EPA's recently released survey report

- be based on national ambient air quality standards (naaqs) and federal episode criteria plus additional modifications necessitated by more recent data on the health effects of air pollutants

- provide flexibility by not being a combined index but one that could consider the major pollutants separately

- be a segmented linear function in which breakpoints correspond to certain standards and criteria; so that, for example, at 100 the naaqs primary standard for a particular pollutant would be reached

- consist of four or more descriptor categories.

The index will be used by state and local air pollution control agencies and by the news media in reporting the air quality of a locality on a daily basis. But additional benefits such as analyses and assessments of air quality in widely scattered localities throughout the U.S. could be reaped.

So, in April 1976 a standard air pollution index will be recommended. There will be no enabling legislation nor any other mechanism to force the uniform nationwide adoption of this index. The Task Force hopes that the potential user community will see the value of a standardized index. More than a dozen state and local agencies, on an informal basis, have indicated that the index will be readily adopted once it is recommended. The future for the index, without federal coercion, appears to be "in the healthy range."

Water quality indicators

At present there are many more than 100 water quality indices or indicators in use throughout the U.S. The past five years have witnessed a proliferation of methods for the interpretive reporting and screening of water quality data. To

bring some order into this chaotic situation, the CEQ, EPA's Office of Water and Hazardous Materials and the U.S. Geological Survey's (USGS) Quality of Water Branch in the Water Resources Division are sponsoring a study of water quality indicators. Begun in December 1974, the study will be completed by this spring.

The study, which is attempting to evaluate about 50 indicators in depth, will hopefully identify those indicators that have major technical problems in terms of scientific accuracy, and classify indicators according to the use to which they should be put to report specific information. Although no single indicator will be recommended, the study will provide a comparative guide to indicators.



CEQ's Reisa

The availability of a myriad of indicators stems from the fact that many different types of parameters are being measured, and there are several different types of water uses for which assessment of water quality must be made. But, these many indices can be broadly classified into ten categories:

- single parameter indicators
- standards violation indicators
- water quality indices/judgmental multi-attribute indices
- water quality indices/empirical multi-attribute indices
- lake quality indicators
- biological indicators
- perception based indicators
- water use indicators
- point source indicators
- non-point source indicators.

Out of the morass

Each of the three sponsoring agencies has its own set of priorities and the study will reflect the set of techniques and indicators each would like to see in use. The EPA, for instance, finds need for indicators in its STORET system, and in its National Water Quality Surveillance System. The USGS needs indicators for reporting on its new National Stream Quality Accounting Network. The CEQ, of course, annually reports on the nation's environmental conditions and trends—the federal overview report on this subject. But where this evaluative study will probably make a great

contribution is in helping the EPA out of the quagmire of 305(b) reports in which it now finds itself.

Under section 305(b) of the 1972 Federal Water Pollution Control Act Amendments, the states are now required to report the conditions and trends of water quality and water pollution abatement programs to the EPA. Although the EPA made a valiant attempt to persuade the states to use similar reporting methods, the effort was far from successful. EPA now is faced with the task of summarizing, on a coherent basis, the vast array of diverse reports supplied by the states.

Hopefully, the study will provide guidance to the states on interpretive techniques, and on the best water quality indicators to use to present specific information for a specific purpose. Should these guidelines be followed, the EPA's job will be greatly simplified.

Biomonitoring inventory

CEQ along with the National Marine Fisheries Service, the Energy Research and Development Administration and the U.S. Fish and Wildlife Service have just embarked on a national inventory of biological monitoring programs. Conducted by scientists at Hollifield (Oak Ridge) National Laboratory, the inventory is an attempt to identify projects concerned with the systematic collection of data on ecological changes and trends.

The inventory will be continually updated and will be a descriptor-laden referral system. What now is being collected is information that characterizes data sets. The information contained in the inventory will eventually allow the scientist or decision-maker to glean enough knowledge about biological time-trend monitoring data to make some intelligent decisions without having hands-on access to the original data sets.

A feast of facts

Reisa told *ES&T* that CEQ and other sponsoring agencies plan to begin in 1976 what is expected to become an annual or biennial event—the publication of two reports tentatively entitled "Environmental Quality Indicators" and the "National Environmental Statistical Report." The former will be a lucid, graphic and highlighted summary of environmental trends, factors influencing these trends and natural resources—a national environmental briefing document so-to-speak. The latter report, summarizing statistics in a multidisciplinary tabular format, will be an environmental and natural resources analog to the *Statistical Abstract of the U.S.* Both volumes should be welcomed by the environmental professional who finds himself hard-pressed to keep abreast of data sources in his own field, let alone in related fields. LRE

APPENDIX O

CRS Evaluation of *Environmental Quality*—1974



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Congressional Research Service

Washington, D.C. 20540

February 10, 1975

TO : Steve Quarles, Counsel
Subcommittee on the Environment and Land Resources

FROM : Environmental Policy Division
Congressional Research Service

SUBJECT : Critical Comments: CEQ's Fifth Annual Report
on Environmental Quality.

Background

The 1974 Annual Report of the Council on Environmental Quality was released on December 12, 1974. The President's Message, printed at the opening of the Report, suggests that increased emphasis on energy conservation bodes well for environmental improvement:

The conservation of energy provides an essential common ground between our need for energy and our desire to protect the environment. By eliminating waste in the use of energy, and by increasing the efficiency of the energy we use, we can move toward both goals simultaneously.

Yet, the President acknowledges that there are inevitable environmental trade-offs to be dealt with in the future development of additional energy sources:

We must also recognize that, even with a strong conservation program, we will still have to mine more coal, drill for more oil and gas, and build more powerplants and refineries. Each of these measures will have an impact on the environment.

In a press statement on the Report, CEQ Chairman Russell W. Peterson, drew attention to a recent set-back in meeting air pollution goals,

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stemming primarily from the increased use of high sulfur fuels in power production.

Levels of sulfur dioxide in urban areas have declined about 50% over the past 7-8 years as a result of substituting natural gas and low sulfur oil for coal at urban powerplants and siting new powerplants and industrial facilities in outlying areas. In this past year, preliminary data indicate a possible change in this trend in some cities as plants have shifted back to higher sulfur fuels. Furthermore, the ambient concentration of sulfates--which rather new data indicate may be particularly hazardous to health--are not declining.

Mr. Peterson's statement also indicates that CEQ's current estimate of pollution control costs over the next decade is almost one-third higher than last year's forecast--\$194.8 billion from 1973 through 1982. Environmental expenditures, however, have been responsible for "less than one-half of one percent of the excessive inflation experienced in the last year."

Report Outline

The body of the Fifth Annual Report consists of five topical chapters on land use, impact of government programs on environmental improvement, trends of environmental clean-up and resource management, recent developments relating to the National Environmental Policy Act, and international environmental efforts. The sixth and final chapter presents highlights from recent factual and policy studies undertaken by CEQ. The narration of the six chapters is extensively illustrated with charts, tables and statistical series. A 16-page summary appears at the front of the Report. Several appendices contain reprints of Acts, guidelines, etc.

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Comments

At the request of the Senate Interior and Insular Affairs Committee, environmental and natural resource analysts of the Congressional Research Service read the report critically, section-by-section, and prepared comments thereon.

Each chapter is briefly summarized below, and followed by the CRS comments.

Chapter 1. Land Use (pp. 1-92)

Summary: This chapter provides an overview of current knowledge about the process of development, particularly on the urban fringe. It concentrates on the environmental, economic and social impacts of land development, the various stimulants which affect development, and the different tools available to control the pace and character of development.

Comments: The information provided is more a primer on land use planning than a discussion of substantive issues and policy alternatives.

A substantial portion of the chapter is devoted to the role of the Federal Government in land use. By no means a comprehensive analysis of the 100 or more federal programs that affect private land use decision-making, the discussion focuses on the "sprawl" creating nature of federal tax policies.

Given the emphasis in the report on the growing federal role in land use decision-making, it is curious that no mention is made of proposals to establish a national land use grant assistance program which was a key issue in the last two Congresses (S. 268 in the 93rd and S. 632 in

the 92nd). This legislation was designed to correct, through state oversight, many of the land use conflicts that inevitably arise from so many federal programs.

The report correctly identifies the Clean Air Act and the Federal Water Pollution Control Act Amendments of 1972 as two federal programs with significant land use implications, but the discussion largely ignores the problems encountered by the Environmental Protection Agency in implementing the land use requirements of the Acts. For example, section 208 of the Water Pollution Act provides for comprehensive planning--areawide waste treatment management--on a statewide basis, and this planning specifically includes land use components. Because of EPA administering section 208, however, much of its potential effectiveness could be lost because waste treatment grants will continue to be made and permits issued without the benefit of land planning guidance.

The report only briefly mentions federal efforts to implement the Coastal Zone Management Act of 1972 and the Flood Disaster Assistance Act of 1973. Both Acts have major land use components and were designed to influence the resolution of coastal and natural hazards issues.

The lack of analysis and discussion of federal efforts to implement the land use requirements of recent enactments causes the chapter to be weak on definition of substantive land use issues likely to be important in the 94th Congress.

Chapter 2. Perspectives on the Environment (pp. 93-238)

Summary: This Chapter discusses major developments of the past year in Government programs to protect the environment. Sections are included on energy, air quality, solid waste, water quality, hazardous pollutants, radiation, noise, pollution control at Federal facilities, costs of pollution abatement, and protection of our natural heritage.

Comments

Energy: The narrative on energy is not wholly descriptive of the nature of policy choices to be made in the relationship between energy and the environment. One of the most direct statements of policy on this subject is as follows:

...to the extent that economic and social goals can be achieved with lower levels of energy use, the environment will benefit. (p. 105)

A major energy/environment issue currently before the Congress is the extent to which it is in the public interest to reduce net electrical generating capacity in fossil fuel powerplants in order to operate sulfur oxide abatement equipment. This complex issue is not addressed in the energy-related sections of the report.

While the factual content of the energy section is clearly and accurately presented, only limited discussion is given of significant environmental policy issues associated with energy production, distribution and pricing. It is, therefore, not very helpful for policy-oriented concerns.

The most significant policy-oriented energy content appears in the Council's "Half-and-Half Plan." This Plan proposes a long-term program

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to conserve energy and environmental quality while meeting the needs of a growing economy. It shows that feasible modifications in individual and institutional behavior would successfully alter the rate of increase in energy demand with negligible economic drag. Unfortunately, the Annual Report devotes less than two pages to a summary of this study (p. 475) and none on its policy implications.

CEQ is on target with its attention to "energy demand management" (p. 105), but sugar-coats this discussion by not pointing out that energy demand management means much more planning and decision-making by government on who shall use fuels, for what purposes and in what quantities in the future. Here are the seeds of controversial legislative issues.

The Report chronicles the delay in the Trans-Alaska Pipeline for environmental reasons, but does not indicate what benefits, if any, accrued to environmental management by this delay (p. 106).

In reporting on oil shale (p. 108), CEQ notes that rising oil prices made oil shale "more economically attractive." This is true, but it is a half-truth. CEQ does not inform the reader whether it finds oil shale production to be economically justifiable or not, or estimate what level oil prices would have to reach for oil shale to become competitive.

Similarly, CEQ's discussion of solar energy contains half-truths. As the Report notes, the rising prices of oil make solar more attractive. But once again the Report implies the gap between costs of using solar and available sources is less than it is. A good point for the writers to make next year would be the costs per Kwhr or million Btu's from solar vs. other energy sources (p. 111).

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In next year's Report, there also might be more policy discussion of the siting of energy facilities (powerplants, refineries, transmission lines) in relation to land use planning and resource management. Future land development will depend upon the availability of natural/synthetic gas and electricity. How should these resource needs be coordinated with sewer planning, highways, etc.? CEQ might also want to address the controversial issue of whether very large energy installations have passed a point of diminishing returns in terms of concentrated environmental effects, forced shutdowns, and maintainability.

Air Quality: The air quality section contains an historical summary and justification of recent EPA actions to overcome problems of implementing certain provisions of the Clean Air Act. But the discussion does not provide a complete policy analysis of the overall problems encountered by EPA which involve important legislative concerns. Omitted are the findings of several congressional investigations, hearings, and agency studies. For example, the Report lacks a full discussion of alternatives to the internal combustion engine. Recent hearings held by the Senate Commerce Committee determined that, although numerous possibilities exist for alternate automobile engines, EPA has restricted its investigations to only a few. Yet a study commission by the Department of Transportation on the economic impact of mass producing alternate, low emission automotive power systems concluded that systems other than the internal combustion engine are economically feasible.

Control of indirect sources is another important policy issue not covered in the Report. The 1974 Environmental Coordination Act prohibited the use of parking surcharges. The FY 1975 appropriations bill also prohibited the use of funds for such measures to implement the Clean Air Act. The Report lacks discussion of the impact of these prohibitions on indirect source regulations and on urban transportation controls generally.

Since indirect sources of pollution are created by an influx of automobiles to centers with ample parking, the delay of parking restrictions effectively bars this method of decreasing air pollution from auto traffic.

The Report also fails to discuss other options for decreasing pollution from vehicles such as improvements in traffic patterns and flow to reduce the concentration of pollution from idling cars at traffic-light-controlled intersections. While the Report notes air quality improvements in Portland, Oregon, it fails to point out that Portland has successfully applied traffic flow adjustments.

Solid Waste Management: The Report devotes only eight pages to discussion of policy affecting solid waste and resource recovery programs.

The economic feasibility of energy recovery from municipal solid waste is emphasized from the standpoint of rising energy costs, higher costs of sanitary landfilling, and the rise of prices of recovered materials. The unstated implication is that current economic factors make unnecessary any governmental stimulation of recycling. This is completely

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in opposition to the final report of the National Commission on Materials Policy, which recommended: (1) the institution of economic incentives to private firms (via low-interest loans, subsidies to encourage cost internalization, and tax credits for expanding use of recycled materials and for investment in capital goods geared for the production of marketable products from recycled materials); (2) the elimination of discriminatory freight rates; (3) the fostering of markets for recycled materials (via Federal procurement, establishment of performance standards rather than composition standards for Federally purchased goods, and removal of certain labeling regulations which discourage consumer purchase of recycled goods); and (4) an accelerated research and development and technology transfer program for resource recovery, particularly as applied to municipal wastes.

The discussion of materials recovery is handled solely by citing examples of price increases for five secondary materials. The extreme volatility of this market (as illustrated by the precipitous fall in wastepaper prices in the second half of 1974), the role played by discriminatory freight rates and virgin materials tax benefits, and the policy potential implications of expanded Federal procurement of products with recycled content are nowhere mentioned.

Water Quality: CEQ does an adequate job of explaining the basis for the development of effluent limitation guidelines under the Federal Water Pollution Control Act Amendments of 1972. The Report indicates, however, that the Environmental Protection Agency "has made substantial progress in developing and promulgating effluent standards" under the Act.

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In fact, EPA did not promulgate guidelines for industrial effluent limitations by the October 18, 1973 statutory deadline. The Report simply notes that "the task proved to be more complex than was realized" and that "it proved impossible for EPA to complete the volume of analysis within the 1-year period under the law." To better inform the Congress on this subject, the CEQ Report might have discussed the policy and program difficulties encountered by EPA--were they manpower, organizational, conceptual or inter-agency problems? Once guidelines were published, what reactions were received from industry, environmental and other interest groups? Which guidelines caused the most controversy? Why?

CEQ states that "the control of non-point pollution is likely to become a major priority for water pollution control in the late 1970's and early 1980's, after pollution from point sources is alleviated." CEQ does not mention, however, that Congress intended for non-point source control be carried out almost simultaneously with pollution control from municipal and industrial point sources. Requirements were included in the FWPCA under section 208 which would provide planning processes to control pollution from these diffuse sources. While CEQ states that "EPA is taking steps to prepare for this effort," in fact, EPA is already a year behind. A recent survey by the Environmental Protection Agency brings out the magnitude of the problem and urgency for corrective measures to be taken. The survey found that States' needs for meeting the requirements of the FWPCA would be \$350 billion. Two-thirds of this total was identified by the States as funds needed to correct storm water runoff, a major contributor to non-point source pollution.

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Under the FWPCA, municipalities are required to achieve secondary treatment of wastes by 1977. Under these stringent regulations required for municipal waste treatment plants, the amount of sludge produced is expected to increase substantially, most likely increasing the amount of sewage sludge which will have to be dumped. The CEQ report does not address this issue nor the recent allegations that sludge, which had been dumped several miles off the shores of New York and New Jersey, has been spotted within a half mile of the beach areas of the two States.

The U.S.-Canada Great Lakes Water Quality Agreement, signed in April, 1972, required both countries to have initiated or completed construction of sewage treatment facilities in major cities of the Great Lakes Basin by the end of 1975. The CEQ report correctly quotes the conclusion in the annual report of the International Joint Commission that substantial progress has been made toward obtaining the objectives of the Agreement. In addition, CEQ accurately paraphrases the IJC report by stating that "U.S. and Canadian sewage treatment programs are adequate to achieve those objectives." What CEQ fails to include, however, is any mention of the next sentence in the IJC report which states:

...because of many unforeseen delays, particularly in the United States, it is extremely unlikely that these programs will be completed by 1975.

There has been considerable criticism by environmental groups that the U.S. has been moving sluggishly toward meeting its obligations under the Agreement.

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Hazardous Pollutants: The discussion of toxic substances focuses on the legislation originally proposed by CEQ, which was not enacted by the Congress. No explanation is given of the rationale underlying the proposal, or the issues raised by congressional hearings and the differing House and Senate versions of the legislation.

CEQ's discussion of occupational health problems associated with hazardous chemicals fails to address the policy implications of two widely publicized situations in this field: (1) The health dangers posed by asbestos fibers discharged into Lake Superior by the Reserve Mining Company. Three significant court cases, including a Supreme Court decision, dealt with this significant policy issue. (2) The possibility of severe restrictions being imposed on the vinyl chloride industry. Vinyl chloride was recently found to cause a rare liver cancer; a tolerable level of exposure to the gas has not been established.

Radiation: If commercial nuclear power grows at the currently projected rate, large quantities of highly radioactive waste material will be produced for which there are currently no adequate disposal methods. The CEQ Report briefly mentions AEC's controversial proposals for both interim and permanent disposal. But the Report fails to fully address other possible options which may prove to be more desirable. This problem must be resolved fairly quickly. Under present regulations some commercial wastes must be turned over to the Nuclear Regulatory Commission by the early 1980's. If a suitable storage facility is to be available, construction must begin within the next 2 to 3 years.

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Noise: The Report summarizes three EPA reports on noise pollution, and describes several significant events over the past year relating to implementation of the Noise Control Act of 1972. However, no mention or criticism is made of EPA's failure to promulgate specific enforceable noise control standards in the two years since passage of the Act.

On the subject of aircraft noise, the Report does not discuss a controversial policy action recently taken by FAA which might trigger congressional intervention. FAA has proposed a rule making the retrofitting of existing noisy jet engines mandatory by July, 1978. This action would essentially eliminate internal modification of turbine engines (refanning) as an approach to lowering decibel levels; instead, it would require external modification of engine housing--employing sound damping material (nacelle)--which is an approach opposed by airlines and some aircraft manufacturers.

Pollution Control at Federal Facilities: A problem which is not discussed in the report is greater use of coal at Federal facilities. The 1974 Environmental Coordination Act provides opportunities for installations to reconvert to, or continue the use of, coal. However, according to surveys conducted during the past few years, Federal facilities have been changing over to low sulfur oil or natural gas in order to comply with pollution control requirements. EPA guidelines did not provide for preferential allocations of low sulfur fuels to these installations. Congress should be made aware of what steps Federal facilities will be expected to take in complying with pollution requirements as a result of the energy crisis.

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Costs of Pollution Abatement: Each year the CEQ Report provides estimates of the pollution abatement costs of environmental programs. This year's estimate is about one-third higher than last year's estimate. The Report offers three reasons for the increase:

Approximately one-fourth of the increase in estimated costs over last year's estimate is explained by inflation. This year's estimate is based on 1973 prices, whereas last year's was based on 1972 prices.

Another one-half of the increase results from shifting the period covered, from 1972-81 in last year's estimates to 1973-82 in this year's. In effect, a relatively high-cost year (1982, which comes at the end of the clean-up process) is added, while a relatively low-cost year (1972, which came before many of the expenditures actually were made) is dropped. The remaining one-quarter of the estimated cost increase is an increase in real costs. This is a combination of substantially increased costs for air pollution abatement, which are contained in the 1974 edition of The Cost of Clean Air, and reduced cost estimates in other sectors, such as water pollution abatement in the utilities sector.

The CEQ estimates appear to show an upward bias. The Council acknowledges this and where ranges of cost estimates exist, they opted for the higher estimate. Similarly, an upward bias results from the assumptions regarding costs of control. The CEQ estimates are based on an "end-of-the-pipe" technology and thus do not reflect adoption by industry of lower-cost process changes. A comparison of CEQ data with that assembled through a survey by the Department of Commerce suggests that investments may be as much as 10 percent less than estimated by CEQ. The "end-of-the-pipe" technology assumption appears to ignore the potential for by-product recovery and its accompanying savings of resources and treatment costs.

An upward bias in cost estimates may also stem from two other factors. One is the assumption that all capital is borrowed and the other

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is the treatment of accelerated depreciation, tax write-offs or other incentives. If the latter is ignored, the upward bias could be significant.

The Council's appraisal of the costs of environmental controls is more comprehensive than most other sources. But with the current interest in the balancing of benefits and costs, the Council's efforts are deficient on the benefit side.

This section of the Report misses an opportunity to address environmental programs in a positive manner. While the report stresses that pollution control expenditures are not expected to create significant unemployment problems, it fails to provide an assessment of employment generated by private and public investments. Certainly the manufacture of pollution equipment, and the construction of treatment facilities generate some employment. Moreover, in many cases, environmental investments have stimulating effects on industry, (for example, increased demand for chlorine).

Protecting Our Natural Heritage: This section refers to the "legacy of parks" program which was designed to provide recreation areas close to urban population centers. While the discussion notes that the transfer of surplus Federal lands has been a part of this program, and that the Gateway and Golden Gate National Recreation Areas have been established in response to the need for urban recreation, there is no indication that the Administration has reversed its position on providing a Federal present in other urban recreation areas such as the Cuyahoga NRA enacted in the last Congress.

The Appalachian Trail is cited as one of the original components of the national scenic trails system, but there is not mention of the lag in land acquisition for the trail by the Park Service.

While the Report indicates that the "first comprehensive outdoor recreation plan was submitted to the Congress in December 1973," the full story on the Plan is not told. The reader would have no inkling that an earlier draft plan (1970) was scuttled by OMB, apparently because of the pricetag factor. The Report also fails to summarize recent criticism of the policies outlined in the 1973 Plan.

Chapter 3: Environmental Conditions and Trends (pp. 239-371)

Summary: This chapter provides information about the condition of the environment and important trends in environmental quality. Sections on population, air and water quality, minerals and materials, pesticides and wildlife habitat are included.

Comments:

Population: While it is evident that there is a need for substantive guidelines addressing the world population problem; none are set forth in the CEQ report. In those nations where the demographic transition has not been achieved, population goals could be initiated that reflect the experience of those developing nations that have completed or are moving toward transition. Reduction of the rural-urban process might be altered by implementing national programs of agricultural development. Benefits would be manifold, providing employment, promoting self-sufficiency in food production and developing the potential of land resources, among others.

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The fifth annual report did not state the need for a reassessment of family planning projects in foreign countries. The goal of population stabilization could be realized by integrating family planning in health services, or more specifically with maternal and child welfare services. Family planning should be viewed as part of the solution to the total world population problem.

Minerals and Material Resources: The Report indicates that the supply and demand of basic minerals--

are determined by the dynamic interaction of physical availability, costs of production, availability of technology and substitutability.

Environmental quality controls which also significantly interact with these factors are not singled out by CEQ as equally dominant.

In the section entitled "A Look Ahead" (p. 307) the Report concludes that 62 mineral resources recoverable at 1971 prices are adequate to meet cumulative world demand "at least to the year 2000." By contrast, Table 28 (p. 308) presents a different story for the U.S. This table shows that based on the ratio of recoverable mineral resources to cumulative demand, the U.S. does not have sufficient reserves of 47 of the 87 commodities listed (ratio of less than 1.0).

Wildlife and Habitat: The sections relating to the wildlife resource constitute neither logically developed examination of the parameters and subjects addressed nor a recommended program for action on each front to guide executive and legislative thinking in addressing wildlife needs and national interests. Little attention is paid to State, local, and private

programs and activities. Fish, fisheries and aquatic biological resources (both marine and freshwater) receive almost no mention and less analysis. Deficiencies in programs and activities related to the wildlife resource are not systematically identified and evaluated, nor are program recommendations tendered to overcome these deficiencies.

On p. 182 it is claimed that several steps were taken in the past year at the Federal level to "broaden the 'fish and game' focus toward one of balanced wildlife management." The only cited example was the spurious claim that the change in name of the Bureau of Sport Fisheries and Wildlife to the Fish and Wildlife Service was to reflect the alleged new orientation.

On p. 187, predator control programs on grazing lands are faulted for the endangered species status of the eastern timber wolf and eastern cougar even though these animals are not associated with grazing lands so much as with woodlands. Predators now in danger of extinction have suffered from "varmint" status permitting year-round, unlimited killing; from systematic predator control programs, including those using poisons; and from habitat alteration or destruction. An accurate treatment of the topic should reflect the distinctions.

Sometimes statements are made which are suspect as to accuracy or which betray insufficient understanding of the subject. On p. 326 the attempt is made to distinguish between extinctions induced by man and those that were (or are) not. The argument is made that man-caused extinctions more often result in total genetic losses than do those in which man has no significant role. This is a contradiction in terms because species

extinction means a genetic combination is forever lost. Anything less than this more properly is part of usual, "normal" natural selection and even speciation--the "creation" of new species. It is true that entire evolutionary genetic lines have been lost through extinction, such as the lines of early hominids not leading to Homo sapiens, and the new world megafauna. Such catastrophic extinctions, however, whether occurring naturally or with man's help, were and are still relatively rare. Most of the man-caused extinctions have not been of the catastrophic order.

Another example of inadequate understanding of a fundamental concept under discussion is demonstrated by Table 32 on p. 328 and the associated statement on p. 329 with respect to wildlife species as indicators of environmental quality. Starlings, blackbirds and Norway rats are listed as indicator species of crop damage. It is demonstrably true that these animals are guilty of causing damage to certain crops. It is quite another matter to claim they are indicators of it as the term "ecological indicator" is usually understood. An ecological indicator serves as an "index" to something as a result of certain correlations involving more than one ecological linkage. The starling/rat crop damage linkage is valid for the direct damage those animals cause to crops, but no good correlation (or index) between their population status and "crop damage" generally has been reported in literature.

One final example of the report's inadequate handling of its subject matter should suffice. On p. 330, continuing the theme that monitored populations of non-endangered, non-game species of birds may serve as

environmental indicators, the report cites increases in recent years in numbers of house finches, cattle egrets, barn swallows, house wrens, robins, and grackles as well as decreases in numbers of yellow warblers and lark buntings. There is no attempt whatsoever to interpret those trends so far as specific causes or implications for environmental quality are concerned. Rather one has the feeling that the data were handy and so were just thrown in.

This last category of criticism so far as the CEQ report treatment of wildlife is concerned is the too frequent weakness or absence of a data base to justify certain statements or positions. For instance, on p. 179 the statement is made that "In 1969 (the last year for which comprehensive figures are available), only 4 percent of the \$142 million spent by all sources for wildlife management, research, and habitat acquisition was expended for clearly non-game purposes." As basis for this claim, the report cites the first annual report of CEQ, but that report made the same claim without citing the source. Similarly, on p. 181 statistics relating to consumptive vs. non-consumptive use of wildlife on BLM and Forest Service lands are repeated, citing CEQ's second annual report as the reference.

On p. 325, speaking of endangered species as percentages of the total American biota, "other studies" are said to have shown that about one-tenth of North American floral species are presently endangered, but not one study is cited where one can read the supporting data or reasoning. Then on p. 326 approximately 400 invertebrate species are said to be threatened with extinction in the U.S., but no basis for this estimate is provided.

Another example of a weak reference is on p. 331 where ecological research is discussed. Quoted is "a forthcoming report of a Committee on Ecological Research sponsored by CEQ and the Federal Council on Science and Technology," which is cited in the reference list as a 1974 publication. In fact, the report is not yet available (though reportedly at a printers), was due in 1973, and the last draft copy read by staff members of CRS was of very challengeable quality. Such a report may therefore not prove a particularly useful basis for action.

A final example of this tendency of CEQ authors to rely on familiar references or authorities which sometimes are not the strongest or best available is seen with respect to environmental indicators, especially wildlife indicators. In the third annual report, CEQ made much of the need for and importance of environmental quality indicators and of developing different indices to aspects of environmental quality. A list of species of wildlife proposed in a Smithsonian Institution report as indicators of certain environmental aspects was presented. CEQ did not endorse the findings for lack of time to evaluate them but promised progress during the following year in developing "quantitative indices of wildlife." However, in the fourth annual report wildlife indices are conspicuous by their absence. Now in the current report, the subject is treated somewhat again (pp. 323, 327-331) and the Smithsonian contract report resurrected as authority with examples of proposed wildlife indicator species taken from that report. The Smithsonian report itself does not represent the best information, thinking, or writing on the

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subject, and was but a first crack at a subject by individuals not professionally active in wildlife research. Perhaps more significant is the absence of any new material or assessment of that Smithsonian product in the two years since its submission. The reader of this fifth CEQ report is not shown whether or what progress in this pioneer area may have occurred since CEQ championed the task in 1972.

Environmental Indices and Interpretive Techniques: The treatment and visibility given environmental indices has been erratic from year to year. The first report in 1970 mentioned the need for developing interpretive indices. In 1971 there was virtually no mention of indices; but in the following year, the 1972 report presented preliminary index values for selected air pollutants based upon monitoring data collected by EPA at a number of cities. In addition, the 1972 report contained a discussion of the various approaches to environmental indices being developed by research organizations. The 1973 report merely mentioned environmental indices and failed to include either summary data or a discussion of progress made on the development of index systems.

The 1974 report contains only a general discussion of the concept of environmental indices. It acknowledges that environmental index systems and indicators are needed and cites studies by the Senate Committee on Interior and Insular Affairs and the National Academy of Sciences which support that conclusion. However, the discussion of indices is primarily platitudes which are embellished by qualifying statements of caution.

The 1974 Report like the 1973 Report, does not include comparative indices to illustrate the air and water quality data which is given in

summary tabular form in other sections of the report. Nor does the 1974 report contain factual information concerning the progress made in the development and use of environmental indices. There is neither an indication of the level of funding and emphasis that the Federal Government is devoting to the development of indices, nor is there any hint of the level of commitment which CEQ is directing internally.

In view of the perfunctory treatment given to environmental indices in the fifth annual report of CEQ, the reader might legitimately ask: Of what value are environmental indices if the Council on Environmental Quality itself refuses to use index systems to communicate the state and trends of environmental quality to the public in its own annual report?

Chapter 4. The National Environmental Policy Act (pp. 371-426)

Summary: This chapter reviews the evolution of NEPA over the first five years since enactment, analyzes recent administrative and judicial developments affecting the implementation of the Act, and briefly summarizes environmental impact mechanisms adopted by foreign nations.

Comment: As an historical treatise, the chapter is excellent. As an analytical piece, insufficient attention is given to recent criticism of Sec. 102(2)(c) procedures (environmental impact statements) as administered by "lead" agencies. No discussion is presented of the differences in utility of environmental assessments as performed by various agencies, or comparability of agency assessment capabilities.

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A primary concern of the Congress is the impact of NEPA process on programmatic planning within various agencies. Since the chapter lacks comprehensive evaluation of the effectiveness and deficiencies of Sec. 102(2)(c) procedures, it is of little use to the Senate Interior and Insular Affairs Committee in identifying approaches for strengthening the Act.

Chapter 5. A Global Environment (pp. 427-466)

Summary: This chapter describes the development of the United Nations Environmental Program (UNEP) and, in the framework of its Action Plan, the broad range of international environmental efforts now underway around the globe.

Comments: From the standpoint of its usefulness to the Congress, the chapter fails to outline in sufficient detail U.S. participation in a number of ongoing international efforts. This applies, in particular, to the UNEP program. For the Congress, such descriptions of U.S. participation as "actively supporting" or "consistently supporting" various aspects of a program does not provide information which would be useful to a Member or a Committee trying to determine the extent or dimension of U.S. contribution. It would have been useful if some attempt had been made to correlate U.S. commitments and policy with current U.S. effort contributing to UNEP goals. Such a correlation might provide the basis for further U.S. initiatives.

No mention is made of the fact that several of the recommendations adopted by the 1972 U.S. Environment Conference (which are the basis for

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the UNEP Action Plan) call on national governments--not UNEP--to take independent actions to implement Conference goals. It would appear useful--again, from the standpoint of the Congress, since such national actions probably would involve Congressional action--if the report had contained some discussion of these recommendations, so that the Congress might consider whether their implementation required further legislation, and whether progress in current programs contributing to Conference goals is adequate.

APPENDIX P

List of Oversight Hearings on NEPA

Congressional Oversight Hearings: The National Environmental Policy Act and the Council on Environmental Quality

1970 - 91st Congress, 2nd Session - Council on Environmental Quality

March 5, and August 12, 1970 - Subcommittee on Fisheries and Wildlife Conservation, No. 91-32, Hearings to allow recently appointed members of CEQ to report and to state plans regarding implementation of NEPA and to consider the 1st Annual Environmental Quality Report (House).

August 25, 1970 - National Environmental Policy Act Relative to Highways, Subcommittee on Roads (Senate).

Feb. 2-6, March 13, April 3, 1970 - The Environmental Decade: Action Proposals for the 1970's, Subcommittee on Conservation and Natural Resources. Hearings to hear proposals for environmental programs and to examine the effectiveness of existing Government policies and programs, House.

December 7-11, 16, 18, 21, 22, 1970 - Administration of the National Environmental Policy Act, Serial No. 91-44, Hearings before the Subcommittee on Fisheries and Wildlife Conservation on Federal agency compliance with Section 102(2)(c) and 103 of NEPA (House).

1971 - 92nd Congress, 1st Session

March 9, 10, 1971 - Public Works for Water and Power Development and AEC Appropriation Bill, 1972, Part I, Hearings before the Subcommittee on Public Works Appropriations to consider FY 72 budget requests for civil works programs of the Army Corps of Engineers . . . Effects of NEPA on projects, including suspension of Croos-Florida Barge Canal . . . (House).

July 23, 1971 - Prospects for Comprehensive Nuclear Test Ban Treaty, Hearings before the Subcommittee on Arms Control, International Law and Organization, . . . Alleged each of AEC conformity with NEPA with respect to "unwarranted" official secrecy in decision on Cannikin underground nuclear test (Senate).

August 6, September 8, 1971, August 16, 1972 - Annual Reports of CEQ Serial Number 92-28, Hearings before the Subcommittee on Fisheries and Wildlife Conservation to study the second and third annual reports of the CEQ (House).

November 3, 1971 - Calvert Cliffs Court Decision, Serial No. 92-14, Hearing before Interior and Insular Affairs Committee to study the implications of Calvert Cliffs Coordinating Committee v. AEC and the court's interpretation of NEPA., Senate.

June 15-17, 22-24, 1971 - Red Tape: Inquiry into Delays and Excessive Paperwork in Administration of Public Works Programs, Hearings before the Subcommittee on Investigations and Oversight, Public Works Committee, including discussion of NEPA requirements, House.

June 3, 4, 1971 - Stream Channelization, Hearings before the Subcommittee on Conservation and Natural Resources, Government Operations Committee, including SCS compliance policies and procedures for NEPA, House.

1972 - 92nd Congress, 2nd Session

February 17, 15, May 24, 1972 - Administration of the National Environmental Policy Act, 1972, Serial No. 92-24. Hearings before the Subcommittee on Fisheries and Wildlife Conservation to consider amendments to NEPA and to examine Federal agency compliance with and administration of the act, House.

March 1, 7-9, 1972 - National Environmental Policy Act, Serial No. 92-H32, Joint Hearings before Public Works and Interior to examine procedures and problems involved in NEPA operations, particularly the requirement that Federal agencies submit statements regarding environmental effects of proposed projects (Senate).

April 11, 1972, Outer Continental Shelf Policy Issues, Serial 92-27, Hearings before Interior Committee, including discussion of NEPA requirements, (Senate).

May 2, 3, June 30, 1972 - Temporary Exemption from Sec. 102 Statements, Serial No. 92-29, Hearings before Subcommittee on Fisheries and Wildlife Conservation, on H. R. 14103, to provide temporary relief to the Army Corps of Engineers and testimony on interpretation of NEPA provision "major Federal actions," (House).

1973- 93rd Congress, 1st Session

May 2, 1973 - Rights-of-Way across Federal Lands: Transportation of Alaska's North Slope Oil, Hearings before Interior Committee on legislation regarding transport of oil from Alaska's North Slope, NEPA requirements (Senate).

1974 - 93rd Congress, 2nd Session

July 18, 1974 - Department of Transportation and Related Agencies Appropriation hearings with discussion of CAB implementation of NEPA, Senate.

April 3, October 19, 1973 - Environment Miscellaneous, Part I, Serial 93-23, Hearings before the Subcommittee on Fisheries and Wildlife Conservation and the Environment, to consider proposed amendments to NEPA, House.

April 10, 1974 - Environmental Impact Statements, Serial No. 93-1139, Hearings before the Subcommittee on Environmental Pollution, Public Works Committee, to investigate rationale for unexpected EPA agreement with House appropriations Committee interpretation that EPA is included within the environmental impact statement requirement of NEPA, Senate).

June 4, 1974 - Corps of Engineers Oversight, Serial No. 93-1145, Hearings before the Subcommittee on Water Resources, Public Works Committee, including discussions of NEPA law suits against Corps of Engineers and their plans for environmental statements, Senate.

1975 - 94th Congress, 1st Session

February 25, 26, 1975 - Public Works for Water and Power Development and Energy Research Appropriation Bill, 1976, Part I, Hearings before Subcommittee on Public Works on FY 76 budget requests for Army Corps of Engineers, including discussion of impact of NEPA, Senate.

May 5, 1975 - Responsibility for Preparation of Environmental Impact Statements, Serial No. 94-H14, Joint Hearing before Subcommittee on Transportation, Public Works Committee and Subcommittee on Environment and Land Resources, Interior Committee, to consider bills amending the National Environmental Policy Act (includes opinion in Conservation Society of South Vermont v. Secretary of Transportation), Senate.

April 7, 8, 22, 1975 - Environment Miscellaneous: Part I, Serial No. 94-5, Hearings before the Subcommittee on Fisheries and Wildlife Conservation and the Environment on bills to clarify congressional intent regarding the degree of Federal involvement necessary in the preparation of an environmental impact statement, House.

July 17, 1975 - Foreign Assistance Authorization, Hearings before the Subcommittee on Foreign Assistance, including discussion of AID pesticide use and compliance with NEPA, Senate.

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July 29, 1975 - Future of the Highway Program, Part 2, Serial No. 94-H22, continuation of hearings before Subcommittee on Transportation, Public Works Committee including analyses of NEPA requirements for highway projects, Senate.

September 8, 17, 18, 26, 1975 - National Environmental Policy Act Oversight, Serial No. 94-14, Hearings before the Subcommittee on Fisheries and Wildlife Conservation and the Environment to assess the effectiveness of EIS preparation by various Federal agencies, and to inquire into agencies' compliance with the intent of NEPA provisions relating to EIS's. House.

Appropriation Hearings: Council on Environmental Quality

1970 - 91st Congress, 2nd Session

March 23, 1970 - Independent Offices and Department of Housing and Urban Development Appropriations for 1971, Part 4, House.

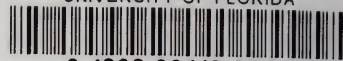
May 28, 1970 - Second Supplemental Appropriation Bill, 1970, House.

1973 - 93rd Congress, 1st Session

March 22, 1973 - Agriculture, Environmental and Consumer Protection Appropriations for 1974, Part 5: Environmental Protection, Hearings on CEQ FY 74 budget request, House.



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